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ISO/TR 10303-307
10303-Product data representation and exchange:Abstract test suite: Sheet metal die planning and design

ABSTRACT: This part of ISO 10303 defines the abstract test suite for ISO 10303-207, Application protocol: Sheet metal die planning and design. It contains the test purposes and abstract test cases for use in conformance testing implementations of ISO 10303-207.

KEYWORDS:abstract test suite, abstract test case, test purposes

COMMENTS TO READER:
This document has been reviewed and noted by the ISO TC 184/SC4 Quality Committee and SC4 Secretariat and has been determined to be ready for this ballot cycle.This document is based on the ISO/DIS 10303-207. It reflects the format and structure specified in *Guidelines for the development of abstract test suites* (ISO TC184/SC4/N434 dated 5 April 1996).

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

— type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;

— type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;

— type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 10303-307, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 184, Industrial automation systems and integration, Subcommittee SC4, Industrial data.

There is an urgent need for guidance on how to test implementations of ISO 10303 application protocols for conformance to the standard. This Technical Report contains abstract test cases that can be used to test implementations for conformance to ISO 10303-207.

This document is being issued in the Technical Report (type 2) series of publications (according to subclause G.3.2.2 of part 1 of the ISO/IEC Directives 1995 as a “prospective standard for provisional application” in the field of conformance testing of ISO 10303 application protocols because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This document is not to be regarded as an “International Standard”. It is proposed for provisional application so that experience of its use in practice may be gathered. Comments on the content of this document should be sent to the ISO Central Secretariat.

A review of this Technical Report (type 2) will be carried out not later than three years after its publication with the options of: extension for another three years; conversion into an International Standard; or withdrawal.

ISO 10303 consists of the following parts under the general title Industrial automation systems and integration - Product data representation and exchange:

— Part 1, Overview and fundamental principles;

— Part 11, Description methods: The EXPRESS language reference manual;

— Part 12, Description method: The EXPRESS-I language reference manual;

— Part 21, Implementation methods: Clear text encoding of the exchange structure;

— Part 22, Implementation method: Standard data access interface specification;

— Part 23, Implementation method: C++ language binding to the standard data access interface;

— Part 24, Implementation method: C language binding to the standard data access interface;

— Part 26, Implementation method: Interface definition language binding to the standard data access;

— Part 31, Conformance testing methodology and framework: General concepts;

— Part 32, Conformance testing methodology and framework: Requirements on testing laboratories and clients;

— Part 33, Conformance testing methodology and framework: Structure and use of abstract test suites;

— Part 34, Conformance testing methodology and framework: Abstract test methods;

— Part 35, Conformance testing methodology and framework: Abstract test methods for SDAI implementations;

— Part 41, Integrated generic resources: Fundamentals of product description and support;

— Part 42, Integrated generic resources: Geometric and topological representation;

— Part 43, Integrated generic resources: Representation structures;

— Part 44, Integrated generic resources: Product structure configuration;

— Part 45, Integrated generic resource: Materials;

— Part 46, Integrated generic resources: Visual presentation;

— Part 47, Integrated generic resource: Shape variation tolerances;

— Part 49, Integrated generic resource: Process structure and properties;

— Part 101, Integrated application resource: Draughting;

— Part 104, Integrated application resource: Finite element analysis;

— Part 105, Integrated application resource: Kinematics;

— Part 106, Integrated application resource: Building construction core model;

— Part 201, Application protocol: Explicit draughting;

— Part 202, Application protocol: Associative draughting;

— Part 203, Application protocol: Configuration controlled design;

— Part 204, Application protocol: Mechanical design using boundary representation;

— Part 205, Application protocol: Mechanical design using surface representation;

— Part 207, Application protocol: Sheet metal die planning and design;

— Part 208, Application protocol: Life cycle management - Change process;

— Part 209, Application protocol: Composite and metallic structural analysis and related design;

— Part 210, Application protocol: Electronic assembly, interconnet, and packaging design;

— Part 212, Application protocol: Electrotechnical design and installation

— Part 213, Application protocol: Numerical control process plans for machined parts;

— Part 214, Application protocol: Core data for automotive design;

— Part 215, Application protocol: Ship arrangement;

— Part 216, Application protocol: Ship moulded forms;

— Part 217, Application protocol: Ship piping;

— Part 218, Application protocol: Ship structures;

— Part 220, Application protocol: Process planning, manufacture, and assembly of layered electronic products;

— Part 221, Application protocol: Functional data and their schematic representation for process plant;

— Part 222, Application protocol: Exchange of product data for composite structures;

— Part 223, Application protocol: Exchange of design and manufacturing product information for casting parts;

— Part 224, Application protocol: Mechanical product definition for process plans using machining features;

— Part 225, Application protocol: Building elements using explicit shape representation;

— Part 226, Application protocol: Ship mechanical systems;

— Part 227, Application protocol: Plant spatial configuration;

— Part 228, Application protocol: Building services: Heating, ventilation, and air conditioning;

— Part 229, Application protocol: Exchange of design and manufacturing product information for forged parts;

— Part 230, Application protocol: Building structural frame: Steelwork;

— Part 231, Application protocol: Process engineering data: Process design and process specification of major equipment;

— Part 232, Application protocol: Technical data packaging core information and exchange;

— Part 301, Abstract test suite: Explicit draughting;

— Part 302, Abstract test suite: Associative draughting;

— Part 303, Abstract test suite: Configuration controlled design;

— Part 304, Abstract test suite: Mechanical design using boundary representation;

— Part 305, Abstract test suite: Mechanical design using surface representation;

— Part 307, Abstract test suite: Sheet metal die planning and design;

— Part 308, Abstract test suite: Life cycle management - Change process;

— Part 309, Abstract test suite: Composite and metallic structural analysis and related design;

— Part 310, Abstract test suite: Electronic assembly, interconnect, and packaging design;

— Part 312, Abstract test suite: Electrotechnical design and installation;

— Part 313, Abstract test suite: Numerical control process plans for machined parts;

— Part 314, Abstract test suite: Core data for automotive mechanical design;

— Part 315, Abstract test suite: Ship arrangement;

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— Part 513, Application interpreted construct: Elementary boundary representation;

— Part 514, Application interpreted construct: Advanced boundary representation;

— Part 515, Application interpreted construct: Constructive solid geometry;

— Part 517, Application interpreted construct: Mechanical design geometric presentation;

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The structure of this International Standard is described in ISO 10303-1. The numbering of the parts of the International Standard reflects its structure:

— Parts 11 and 12 specify the description methods,

— Parts 21 to 26 specify the implementation methods,

— Parts 31 to 35 specify the conformance testing methodology and framework,

— Parts 41 to 49 specify the integrated generic resources,

— Parts 101 to 106 specify the integrated application resources,

— Parts 201 to 232 specify the application protocols,

— Parts 301 to 332 specify the abstract test suites, and

— Parts 501 to 518 specify the application interpreted constructs.

Should further parts be published, they will follow the same numbering pattern.

Annexes A, B and C are normative and thus integral to this ATS. Annex D is for information only.

Introduction

ISO 10303 is an International Standard for the computer-interpretable representation and exchange of product data. The objective is to provide a neutral mechanism capable of describing product data throughout the life cycle of a product independent from any particular system. The nature of this description makes it suitable not only for neutral file exchange, but also as a basis for implementing and sharing product databases and archiving.

This International Standard is organized as a series of parts, each published separately. The parts of ISO 10303 fall into one of the following series: description methods, integrated resources, application interpreted constructs, application protocols, abstract test suites, implementation methods, and conformance testing. The series are described in ISO 10303-1. This part of ISO 10303 is a member of the abstract test suite series.

The purpose of an abstract test suite is to provide a basis for evaluating whether a particular implementation of an application protocol actually conforms to the requirements of that application protocol. A standard abstract test suite helps ensure that evaluations of conformance are conducted in a consistent manner by different test laboratories.

This part of ISO 10303 specifies the abstract test suite for ISO 10303-207, Application protocol: Sheet metal die planning and design. The abstract test cases presented here are the basis for conformance testing of implementations of ISO 10303-207.

The pilot implementation was based on conformance class 1, conformance class 2, conformance class 4, conformance class 5, and conformance class 7. The pilot implementation showed the usability of AP207 as a data sharing mechanism among different departments within a single corporation. Data sharing occured between Die Processing Department, Die Layout Department, and Die Design Department. The data involved was a work authorization request, a process plan, a bill of material, part design data, die layout data, and die design data. The design data consisted mostly of wireframe and surface representation. Solid representation and dimensional representation have not been tested yet. The pilot implementation tested approximately 60 to 70 percent of application elements.

This abstract test suite is made up of two major parts:

— the test purposes, the specific items to be covered by conformance testing;

— the set of abstract test cases that meet those test purposes.

The test purposes are statements of the application protocol requirements that are to be addressed by the abstract test cases. Test purposes are derived primarily from the application protocol’s application elements and application interpreted model, as well as from other sources such as standards referenced by the application protocol and other requirements stated in the application protocol conformance requirements clause.

The abstract test cases address the test purposes by:

— specifying the requirements for input data to be used when testing an implementation of the application protocol;

— specifying the verdict criteria to be used when evaluating whether the implementation successfully converted the input data to a different form.

The abstract test cases set the requirements for the executable test cases that are required to actually conduct a conformance test. Executable test cases contain the scripts, detailed values, and other explicit information required to conduct a conformance test on a specific implementation of the application protocol.

At the time of publication of this document, conformance testing requirements had been established for implementations of application protocols in combination with ISO 10303-21 and ISO 10303-22. Accordingly, this part of ISO 10303 only specifies test purposes and abstract test cases appropriate to such implementations.

For ISO 10303-21, two kinds of implementations, preprocessors and postprocessors, must be tested. Both of these are addressed in this abstract test suite.

For ISO 10303-22, a class of applications will possess the capability to upload and download application protocol-compliant standard data access interface-models and/or schema instances to and from applications that implement the standard data access interface. This abstract test suite addresses such applications.

Industrial automation systems and integration — Product data representation and exchange — Part 307: Abstract test suite: Sheet metal die planning and design

1 Scope

This part of ISO 10303 specifies the abstract test suite to be used in the conformance testing of implementations of ISO 10303-207. The following are within the scope of this part of ISO 10303:

— the specification of the test purposes associated with ISO 10303-207;

— the verdict criteria to be applied during conformance testing of an implementation of ISO 10303-207 using ISO 10303-21;

NOTE - The verdict criteria are used to acertain whether a test purpose has been satisfactorily met by an implementation under test (IUT) within the context of a given test case.

— the abstract test cases to be used as the basis for the executable test cases for conformance testing.

The following are outside the scope of this part of ISO 10303:

— the creation of executable test cases;

— testing other than conformance testing;

— other implementation methods.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10303. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10303 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 10303-1:1994, *Industrial automation systems and integration - Product data representation and exchange - part 1: Overview and fundamental principles.*

ISO 10303-11:1994, *Industrial automation systems and integration - Product data representation and exchange - part 11: Description methods: The EXPRESS language reference manual.*

ISO 10303-21:1994, *Industrial automation systems and integration - Product data representation and exchange - part 21: Implementation methods: Clear text encoding of the exchange.*

ISO 10303-22—[1], : *Industrial automation systems and integration - Product data representation and exchange - part 22: Implementation methods: Standard Data Access Interface.*

ISO 10303-31:1994, *Industrial automation systems and integration - Product data representation and exchange - part 31: Conformance testing methodology and framework: General concepts .*

ISO/FDIS 10303-207—[1], *Industrial automation systems and integration - Product data representation and exchange - part 207: Application Protocol: Sheet metal die planning and design.*

3 Definitions and abbreviations

a. Terms defined in ISO 10303-1

This part of ISO 10303 makes use of the following terms defined in ISO 10303-1:

— abstract test suite (ATS);

— application interpreted model (AIM);

— application object;

— application protocol (AP);

— application reference model (ARM);

— conformance class (CC);

— implementation method.

[1] To be published

b. Terms defined in ISO 10303-31

This part of ISO 10303 makes use of the following abbreviations defined in ISO 10303-31:

— abstract test case (ATC);

— conformance testing;

— executable test case;

— implementation under test (IUT);

— postprocessor;

— preprocessor;

— test purpose;

— verdict criteria.

c. Terms defined in ISO 10303-207

This part of ISO 10303 makes use of the following terms defined in ISO 10303-207:

— cam;

— die;

— die face;

— die set;

— die structure;

— feature;

— feature property;

— hard aid;

— in-process;

— mating die;

— part process plan;

— sheet metal;

— sheet metal part;

— stamping press.

d. Other definitions

For the purposes of this part of ISO 10303, the following definitions apply:

i. application element (AE): an application object, attribute, or assertion defining the information requirements in clause 4 of an AP.

ii. domain test purpose: a type of test purpose that is based on general requirements of the application domain of the application protocol.

iii. external reference test purpose: a type of test purpose that is based on an external standard referenced by the application protocol.

iv. input specification: a description of the information to be used in preprocessor conformance testing to build the required model to satisfy the test purpose and verdict criteria.

e. Abbreviations

For the purposes of this part of ISO 10303, the following abbreviations apply:

ATC Abstract Test Case

ATS Abstract Test Suite

AE Application Element

AIM Application Interpreted Model

AP Application Protocol

ARM Application Reference Model

CC Conformance Class

IUT Implementation Under Test

SI International System of Units

B-rep Boundary representation

CSG Constructive Solid Geometry

4 Test purposes

This clause specifies the test purposes for this part of ISO 10303. Test purposes in 4.1 and 4.2 are derived from the information requirements contained in clause 4 of ISO 10303-207 and the AIM EXPRESS schema in annex A of ISO 10303-207. Each test purpose statement identifies some specific element from the AEs or the AIM. Every test purpose statement implicitly requires that the identified element, as specified in the test purpose statement, will be correctly instantiated by the implementation under test.

a. Application element test purposes

AE test purposes are individually identified by the prefix "ae" in the test purpose number. Each test purpose derived from the information requirements shall be interpreted as given in the following statement: the IUT shall preserve the semantic associated with the unique application element from which the test purpose was derived. This implies that the semantics of the application element are preserved by the IUT between the input and output of a test, according to the reference path specified in the mapping table of the AP. AE test purposes apply to the input specifications of both preprocessor and postprocessor test cases. AE test purposes are derived from the AP information requirements as follows:

— application objects (see 4.2 of ISO 10303-207). A test purpose derived from an application object is a simple statement of the object's name. Each application object test purpose is documented in a separate subclause.

— application objects with categorisations (subtypes) (see 4.2 of ISO 10303-207). Test purposes derived from application objects with categorisations are statements of the application object name as a specific subtype.

— application object attributes (see 4.2 of ISO 10303-207). Test purposes derived from application object attributes are statements of the application object name with a specific attribute name.

— application assertions (see 4.3 of ISO 10303-207). Test purposes derived from application assertions are statements describing the relationship between two application objects. Application assertion test purposes address the directions of relationships as well as the number (cardinality) of relationships.

Each application object test purpose is listed as a separate subclause, with its related application object attribute test purposes and assertion test purposes.

i. Angle_distance_dimension

ae1 Angle_distance_dimension
ae2 Angle_distance_dimension with clockwise = EQUAL

ae3 Angle_distance_dimension with clockwise = SMALL
ae4 Angle_distance_dimension with clockwise = LARGE
ae5 Angle_distance_dimension with orientation = EQUAL
ae6 Angle_distance_dimension with orientation = SMALL
ae7 Angle_distance_dimension with orientation = LARGE

ii. Assembly_component_relationship

ae57 Assembly_component_relationship (6.18)
ae58 Assembly_component_relationship with component_quantity (6.18)
ae59 Assembly_component_relationship <substitutes for> zero Assembly_component_relationship (6.18)
ae60 Assembly_component_relationship <substitutes for> one Assembly_component_relationship
ae61 Assembly_component_relationship <substitutes for> many Assembly_component_relationship
ae62 Assembly_component_relationship <has as the shape of the component in the assembly> zero Shape_definition (6.18)
ae63 Assembly_component_relationship <has as the shape of the component in the assembly> one Shape_definition
ae64 Assembly_component_relationship <has as the shape of the component in the assembly> many Shape_definition
ae65 Assembly_component_relationship <is substitute for> zero Assembly_component_relationship (6.18)
ae66 Assembly_component_relationship <is substitute for> one Assembly_component_relationship
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ae122 Change_order <is based on> many Work_item
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ae229 Coincidence_defaults with angle
ae230 Coincidence_defaults <provides default uncertainties for> zero Shape_definition (6.10, 6.11, 6.12)
ae231 Coincidence_defaults <provides default uncertainties for> one Shape_definition
ae232 Coincidence_defaults <provides default uncertainties for> many Shape_definition

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ae384 Designed_item with data_exchange_history (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.25)
ae385 Designed_item with data_ownership (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.25)
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ae387 Designed_item with generating_system_information (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.25)
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ae766 Dimension_tolerance_range <has as upper limit> many Tolerance_value
ae767 Dimension_tolerance_range <has as lower limit> zero Tolerance_value
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ae770 Dimension_tolerance_range <describes permissible variation of> zero Dimensional_-representation
ae771 Dimension_tolerance_range <describes permissible variation of> one Dimensional_-representation
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ae1097 Feature_property with property_description
ae1098 Feature_property with property_type
ae1099 Feature_property <is possessed by> zero Feature
ae1100 Feature_property <is possessed by> one Feature
ae1101 Feature_property <is possessed by> many Feature

xxii. Feature_shape_definition

ae1151 Feature_shape_definition
ae1152 Feature_shape_definition <is called out by> zero Shape_tolerance
ae1153 Feature_shape_definition <is called out by> one Shape_tolerance
ae1154 Feature_shape_definition <is called out by> many Shape_tolerance

xxiii. Final_part_definition

ae1204 Final_part_definition (6.5, 6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21, 6.25)
ae1205 Final_part_definition <defines the part on> zero Part_on_product (6.5, 6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21)
ae1206 Final_part_definition <defines the part on> one Part_on_product (6.25)
ae1207 Final_part_definition <defines the part on> many Part_on_product
ae1208 Final_part_definition <has manufacture defined by> zero Part_process_plan (6.5, 6.10,6.11, 6.12, 6.16, 6.17, 6.20, 6.21, 6.25)
ae1209 Final_part_definition <has manufacture defined by> one Part_process_plan
ae1210 Final_part_definition <has manufacture defined by> many Part_process_plan

xxiv. In_process_part_definition

ae1366 In_process_part_definition (6.10, 6.11, 6.12)
ae1367 In_process_part_definition <is operated upon by> zero Process_operation (6.10, 6.11, 6.12)
ae1368 In_process_part_definition <is operated upon by> one Process_operation
ae1369 In_process_part_definition <is operated upon by> many Process_operation

xxv. Input_item_die_relationship

ae1260 Input_item_die_relationship (6.21)
ae1261 Input_item_die_relationship <has input item position within the die described by> zero Shape_definition (6.21)
ae1262 Input_item_die_relationship<has input item position within the die described by> one Shape_definition
ae1263 Input_item_die_relationship <has input item position within the die described by> many Shape_definition

xxvi. Internal_order

ae1313 Internal_order (6.3)
ae1314 Internal_order with authorized_hours (6.3)
ae1315 Internal_order with charge_number (6.3)
ae1316 Internal_order with source_department (6.3)

xxvii. Item

ae1419 Item (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1420 Item with item_description (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1421 Item with item_name (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1422 Item with item_number (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1423 Item <is classified by> zero Item_classification (6.25)
ae1424 Item <is classified by> one Item_classification (6.15, 6.20, 6.21, 6.22)
ae1425 Item <is classified by> many Item_classification (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.25)
ae1426 Item <is versioned by> zero Item_version (6.22)
ae1427 Item <is versioned by> one Item_version (6.15, 6.25)
ae1428 Item <is versioned by> many Item_version (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

xxviii. Item_classification

ae1478 Item_classification (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1479 Item_classification with classification_description (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1480 Item_classification with classification_identification (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1481 Item_classification with classification_name (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
ae1482 Item_classification <is primary in> zero Item_classification_relationship (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

ae1483 Item_classification <is primary in> one Item_classification_relationship (6.22)
ae1484 Item_classification <is primary in> many Item_classification_relationship
ae1485 Item_classification <is secondary in> zero Item_classification_relationship (6.5, 6.6, 6.7, 6.8, 6.9, 6 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1486 Item_classification <is secondary in> one Item_classification_relationship (6.22)
ae1487 Item_classification <is secondary in> many Item_classification_relationship
ae1488 Item_classification <classifies> zero Item
ae1489 Item_classification <classifies> one Item (6.5, 6.6,6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1490 Item_classification <classifies> many Item (6.16, 6.17, 6.18, 6.19, 6.22)

xxix. Item_classification_relationship

ae1540 Item_classification_relationship (6.22)
ae1541 Item_classification_relationship with relationship_description (6.22)
ae1542 Item_classification_relationship <has as primary> zero Item_classification
ae1543 Item_classification_relationship <has as primary> one Item_classification
ae1544 Item_classification_relationship <has as primary> many Item_classification (6.22)
ae1545 Item_classification_relationship <has as secondary> zero Item_classification
ae1546 Item_classification_relationship <has as secondary> one Item_classification
ae1547 Item_classification_relationship <has as secondary> many Item_classification (6.22)

xxx. Item_definition

ae1597 Item_definition (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1598 Item_definition with approval (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1599 Item_definition with approval_status (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1600 Item_definition with definition_description (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1601 Item_definition with procurement_information (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1602 Item_definition with proprietary_security_usage_information (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1603 Item_definition <includes> zero Feature
ae1604 Item_definition <includes> one Feature (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1605 Item_definition <includes> many Feature
ae1606 Item_definition <is first in> zero Item_definition_relationship
ae1607 Item_definition <is first in> one Item_definition_relationship (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1608 Item_definition <is first in> many Item_definition_relationship
ae1609 Item_definition <is second in> zero Item_definition_relationship
ae1610 Item_definition <is second in> one Item_definition_relationship (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1611 Item_definition <is second in> many Item_definition_relationship

ae1612 Item_definition <has shape characterized by> zero Shape_definition
ae1613 Item_definition <has shape characterized by> one Shape_definition (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1614 Item_definition <has shape characterized by> many Shape_definition
ae1615 Item_definition <defines> zero Item_version
ae1616 Item_definition <defines> one Item_version (6.5, 6.6, 6.7, 6.8, 6.9, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1617 Item_definition <defines> many Item_version

xxxi. Item_definition_relationship

ae1667 Item_definition_relationship (6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
ae1668 Item_definition_relationship with relationship_description (6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
ae1669 Item_definition_relationship <has as first> zero Item_definition (6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21)
ae1670 Item_definition_relationship <has as first> one Item_definition (6.18, 6.19)
ae1671 Item_definition_relationship <has as first> many Item_definition
ae1672 Item_definition_relationship <has as second> zero Item_definition (6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21)
ae1673 Item_definition_relationship <has as second> one Item_definition (6.18, 6.19)
ae1674 Item_definition_relationship <has as second> many Item_definition

xxxii. Item_version

ae1724 Item_version (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1725 Item_version with approval (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1726 Item_version with approval_status (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21,6.25)
ae1727 Item_version with description (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1728 Item_version with item_version_identification (6.5, 6.6, 6.7, 6.8, 6.9, 6.10,6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1729 Item_version with revision_date_and_time (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1730 Item_version <is defined by> zero Item_definition (6.10, 6.11, 6.12)
ae1731 Item_version <is defined by> one Item_definition (6.5,6.11, 6.12, 6.20, 6.25)
ae1732 Item_version <is defined by> many Item_definition (6.6, 6.7, 6.8, 6.9, 6.10, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
ae1733 Item_version <versions> zero Item
ae1734 Item_version <versions> one Item (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21,6.25)
ae1735 Item_version <versions> many Item

xxxiii. Linear_distance_dimension

ae1785 Linear_distance_dimension (6.10)

xxxiv. Made_in_house

ae1835 Made_in_house (6.5, 6.6)

xxxv. Make_similar_to_relationship

ae1885 Make_similar_to_relationship (6.16)

xxxvi. Marketable_assembly

ae1935 Marketable_assembly (6.25)
ae1936 Marketable_assembly with model_identification (6.25)
ae1937 Marketable_assembly with production_year (6.25)
ae1938 Marketable_assembly with style_identification (6.25)
ae1939 Marketable_assembly <is the product for> zero Part_on_product (6.25)
ae1940 Marketable_assembly <is the product for> one Part_on_product
ae1941 Marketable_assembly <is the product for> many Part_on_product

xxxvii. Material

ae1991 Material (6.20)

xxxviii. Material_definition

ae2041 Material_definition (6.20)
ae2042 Material_definition with material_description (6.20)
ae2043 Material_definition with material_specification (6.20)
ae2044 Material_definition <specifies material for> zero Part_definition (6.20)
ae2045 Material_definition <specifies material for> one Part_definition
ae2046 Material_definition <specifies material for> many Part_definition

xxxix. Material_shape_definition

ae2096 Material_shape_definition
ae2097 Material_shape_definition <is called out by> zero Shape_tolerance
ae2098 Material_shape_definition <is called out by> one Shape_tolerance
ae2099 Material_shape_definition <is called out by> many Shape_tolerance

xl. Mating_relationship

ae2149 Mating_relationship
ae2150 Mating_relationship <has on the shape of the interface> zero Shape_definition

ae2151 Mating_relationship <has on the shape of the interface> one Shape_definition
ae2152 Mating_relationship <has on the shape of the interface> many Shape_definition

xli. Part

ae2202 Part (6.5, 6.10, 6.11, 6.12, 6.15, 6.17, 6.20, 6.21, 6.22, 6.25)

xlii. Part_definition

ae2252 Part_definition (6.5, 6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21, 6.25)
ae2253 Part_definition <has material specified by> zero Material_definition (6.5, 6.10, 6.11, 6.12, 6.16, 6.17, 6.20, 6.21, 6.25)
ae2254 Part_definition <has material specified by> one Material_definition
ae2255 Part_definition <has material specified by> many Material_definition

xliii. Part_on_product

ae2305 Part_on_product (6.25)
ae2306 Part_on_product <is located at> zero Part_on_product_location
ae2307 Part_on_product <is located at> one Part_on_product_location (6.25)
ae2308 Part_on_product <is located at> many Part_on_product_location
ae2309 Part_on_product <has> zero Production_effectivity
ae2310 Part_on_product <has> one Production_effectivity (6.25)
ae2311 Part_on_product <has> many Production_effectivity
ae2312 Part_on_product <is defined by> zero Final_part_definition
ae2313 Part_on_product <is defined by> one Final_part_definition (6.25)
ae2314 Part_on_product <is defined by> many Final_part_definition
ae2315 Part_on_product <has> zero Marketable_assembly (6.25)
ae2316 Part_on_product <has> one Marketable_assembly
ae2317 Part_on_product <has> many Marketable_assembly

xliv. Part_on_product_location

ae2367 Part_on_product_location (6.25)
ae2368 Part_on_product_location with intraproduct_location (6.25)
ae2369 Part_on_product_location <has> zero Part_on_product
ae2370 Part_on_product_location <has> one Part_on_product (6.25)
ae2371 Part_on_product_location <has> many Part_on_product

xlv. Part_process_plan

ae2421 Part_process_plan (6.13, 6.14, 6.15)
ae2422 Part_process_plan with approval (6.13, 6.14, 6.15)
ae2423 Part_process_plan with approval_status (6.13, 6.14, 6.15)
ae2424 Part_process_plan with creation_date_and_time (6.13, 6.14, 6.15)
ae2425 Part_process_plan with data_ownership (6.13, 6.14, 6.15)

ae2426 Part_process_plan with generating_system_information (6.13, 6.14, 6.15)
ae2427 Part_process_plan with part_process_version_identification (6.13, 6.14, 6.15)
ae2428 Part_process_plan with plan_status (6.13, 6.14, 6.15)
ae2429 Part_process_plan with planner (6.13, 6.14, 6.15)
ae2430 Part_process_plan with production_rate (6.13, 6.14)
ae2431 Part_process_plan with proprietary_security_usage_information (6.13, 6.14, 6.15)
ae2432 Part_process_plan with review_date_and_time (6.13, 6.14, 6.15)
ae2433 Part_process_plan with version_description (6.13, 6.15)
ae2434 Part_process_plan <substitutes for> zero Part_process_plan (6.13, 6.14, 6.15)
ae2435 Part_process_plan <substitutes for> one Part_process_plan
ae2436 Part_process_plan <substitutes for> many Part_process_plan
ae2437 Part_process_plan <is previous part_process_plan in> zero Part_process_plan_version_relationship (6.13, 6.14, 6.15)
ae2438 Part_process_plan <is previous part process plan in> one Part_process_plan_version_relationship
ae2439 Part_process_plan <is previous part process plan in> many Part_process_plan_version_relationship
ae2440 Part_process_plan <is next part_process_plan in> zero Part_process_plan_version_relationship (6.13, 6.14, 6.15)
ae2441 Part_process_plan <is next part_process_plan in> one Part_process_plan_version_relationship
ae2442 Part_process_plan <is next part_process_plan in> many Part_process_plan_version_relationship
ae2443 Part_process_plan <is constrained by> zero Plant_constraint (6.13, 6.14, 6.15)
ae2444 Part_process_plan <is constrained by> one Plant_constraint
ae2445 Part_process_plan <is constrained by> many Plant_constraint
ae2446 Part_process_plan <defines a series of > zero Process_operation (6.13, 6.14, 6.15)
ae2447 Part_process_plan <defines a series of> one Process_operation
ae2448 Part_process_plan <defines a series of> many Process_operation
ae2449 Part_process_plan <defines manufacture of> zero Final_part_definition (6.13, 6.14, 6.15)
ae2450 Part_process_plan <defines manufacture of> one Final_part_definition
ae2451 Part_process_plan <defines manufacture of> many Final_part_definition
ae2452 Part_process_plan <is substitute for> zero Part_process_plan (6.13, 6.14, 6.15)
ae2453 Part_process_plan <is substitute for> one Part_process_plan
ae2454 Part_process_plan <is substitute for> many Part_process_plan
ae2455 Part_process_plan <has as a template> zero Part_process_plan_template (6.13, 6.14, 6.15)
ae2456 Part_process_plan <has as a template> one Part_process_plan_template
ae2457 Part_process_plan <has as a template> many Part_process_plan_template

xlvi. Part_process_plan_template

ae2507 Part_process_plan_template
ae2508 Part_process_plan_template <is the template for> zero Part_process_plan
ae2509 Part_process_plan_template <is the template for> one Part_process_plan
ae2510 Part_process_plan_template <is the template for> many Part_process_plan

xlvii. Part_process_plan_version_relationship

ae2560 Part_process_plan_version_relationship
ae2561 Part_process_plan_version_relationship with revision_reason
ae2562 Part_process_plan_version_relationship <has as previous part_process_plan> zero Part_process_plan
ae2563 Part_process_plan_version_relationship <has as previous part_process_plan> one Part_process_plan
ae2564 Part_process_plan_version_relationship <has as previous part_process_plan> many Part_process_plan
ae2565 Part_process_plan_version_relationship <has as next part_process_plan> zero Part_process_plan
ae2566 Part_process_plan_version_relationship <has as next part_process_plan> one Part_process_plan
ae2567 Part_process_plan_version_relationship <has as next part_process_plan> many Part_process_plan

xlviii. Part_shape_definition

ae2617 Part_shape_definition
ae2618 Part_shape_definition <is called out by> zero Shape_tolerance
ae2619 Part_shape_definition <is called out by> one Shape_tolerance
ae2620 Part_shape_definition <is called out by> many Shape_tolerance

xlix. Physical_representation

ae2670 Physical_representation
ae2671 Physical_representation with hard_aid_description
ae2672 Physical_representation with hard_aid_identification
ae2673 Physical_representation with hard_aid_type

l. Plant_constraint

ae2723 Plant_constraint (6.15)
ae2724 Plant_constraint with constraint_description (6.15)
ae2725 Plant_constraint with constraint_type (6.15)
ae2726 Plant_constraint with constraint_value (6.15)
ae2727 Plant_constraint with plant_identification (6.15)
ae2728 Plant_constraint <constrains> zero Part_process_plan (6.15)
ae2729 Plant_constraint <constrains> one Part_process_plan
ae2730 Plant_constraint <constrains> many Part_process_plan

li. Position_orientation_representation

ae2780 Position_orientation_representation (6.4, 6.8, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.23)

liii. Press_definition

ae2830 Press_definition (6.15)
ae2831 Press_definition with automation_equipment (6.15)
ae2832 Press_definition with press_forces (6.15)
ae2833 Press_definition with press_identification (6.15)
ae2834 Press_definition with press_line (6.15)
ae2835 Press_definition with press_location (6.15)
ae2836 Press_definition with press_size (6.15)
ae2837 Press_definition with press_specification_reference (6.15)
ae2838 Press_definition with press_type 96.15)
ae2839 Press_definition <is alternate for> zero Press_definition
ae2840 Press_definition <is alternate for> one Press_definition (6.15)
ae2841 Press_definition <is alternate for> many Press_definition
ae2842 Press_definition <defines a press used for> zero Process_operation
ae2843 Press_definition <defines a press used for> one Process_operation (6.15)
ae2844 Press_definition <defines a press used for> many Process_operation
ae2845 Press_definition <serves alternate for> zero Press_definition
ae2846 Press_definition <serves alternate for> one Press_definition (6.15)
ae2847 Press_definition <serves alternate for> many Press_definition

liii. Process_operation

ae2897 Process_operation (6.13, 6.15)
ae2898 Process_operation with operation_description (6.13, 6.15)
ae2899 Process_operation with operation_sequence_number (6.13, 6.15)
ae2900 Process_operation with reference_specifications (6.13, 6.15)
ae2901 Process_operation with required_shut_height (6.13, 6.15)
ae2902 Process_operation with required_stamping_forces (6.13, 6.15)
ae2903 Process_operation with scrap_percentage (6.13, 6.15)
ae2904 Process_operation with units_per_operation (6.13, 6.15)
ae2905 Process_operation <is alternate for> zero Process_operation (6.13, 6.15)
ae2906 Process_operation <is alternate for> one Process_operation
ae2907 Process_operation <is alternate for> many Process_operation
ae2908 Process_operation <uses> zero Scrap_definition (6.13, 6.15)
ae2909 Process_operation <uses> one Scrap_definition
ae2910 Process_operation <uses> many Scrap_definition
ae2911 Process_operation <produces> zero Scrap_definition (6.13, 6.15)
ae2912 Process_operation <produces> one Scrap_definition
ae2913 Process_operation <produces> many Scrap_definition
ae2914 Process_operation <requires as tool(s) the die defined by> zero Die_definition (6.13, 6.15)
ae2915 Process_operation <requires as tool(s) the die defined by> one Die_definition
ae2916 Process_operation <requires as tool(s) the die defined by> many Die_definition
ae2917 Process_operation <operates upon> zero In_process_part_definition (6.13, 6.15)
ae2918 Process_operation <operates upon> one In_process_part_definition
ae2919 Process_operation <operates upon> many In_process_part_definition

ae2920 Process_operation <is defined by> zero Part_process_plan (6.13, 6.15)
ae2921 Process_operation <is defined by> one Part_process_plan
ae2922 Process_operation <is defined by> many Part_process_plan
ae2923 Process_operation <uses> zero Press_definition (6.13, 6.15)
ae2924 Process_operation <uses> one Press_definition
ae2925 Process_operation <uses> many Press_definition
ae2926 Process_operation <serves alternately fo> zero Process_operation (6.13, 6.14, 6.15)
ae2927 Process_operation <serves alternately for> one Process_operation
ae2928 Process_operation <serves alternately for> many Process_operation

liv. Production_effectivity

ae2978 Production_effectivity (6.25)
ae2979 Production_effectivity with date_and_time_effectivity (6.25)
ae2980 Production_effectivity with effectivity_identification (6.25)
ae2981 Production_effectivity with sequence_effectivity (6.25)
ae2982 Production_effectivity <applies to> zero Part_on_product
ae2983 Production_effectivity <applies to> one Part_on_product (6.25)
ae2984 Production_effectivity <applies to> many Part_on_product

lv. Purchased

ae3034 Purchased (6.7, 6.8, 6.9)
ae3035 Purchased with purchase_requirements (6.7, 6.8, 6.9)

lvi. Radius_size_dimension

ae3085 Radius_size_dimension

lvii. Representation_element

ae3135 Representation_element (6.8, 6.9, 6.10, 6.11, 6.12)
ae3136 Representation_element <represents> zero Shape_definition (6.8, 6.9,6.10, 6.11, 6.12)
ae3137 Representation_element <represents> one Shape_definition (6.10)
ae3138 Representation_element <represents> many Shape_definition

lviii. Scrap_definition

ae3188 Scrap_definition
ae3189 Scrap_definition <is used by> zero Process_operation
ae3190 Scrap_definition <is used by> one Process_operation
ae3191 Scrap_definition <is used by> many Process_operation
ae3192 Scrap_definition <is produced by> zero Process_operation
ae3193 Scrap_definition <is produced by> one Process_operation
ae3194 Scrap_definition <is produced by> many Process_operation

lix. Shape_definition

ae3244 Shape_definition (6.8, 6.9, 6.10, 6.11, 6.12)
ae3245 Shape_definition with shape_description (6.8, 6.9, 6.10,6.11, 6.12)
ae3246 Shape_definition <is primary in> zero Shape_definition_relationship (6.8, 6.9, 6.11, 6.12)
ae3247 Shape_definition <is primary in> one Shape_definition_relationship (6.10)
ae3248 Shape_definition <is primary in> many Shape_definition_relationship
ae3249 Shape_definition <is secondary in> zero Shape_definition_relationship (6.8, 6.9, 6.11, 6.12)
ae3250 Shape_definition <is secondary in> one Shape_definition_relationship (6.10)
ae3251 Shape_definition <is secondary in> many Shape_definition_relationship
ae3252 Shape_definition <defines the shape of> zero Feature (6.8, 6.9, 6.10, 6.11, 6.12)
ae3253 Shape_definition <defines the shape of> one Feature (6.10)
ae3254 Shape_definition <defines the shape of> many Feature
ae3255 Shape_definition <characterizes shape of> zero Item_definition (6.8, 6.9, 6.10, 6.11, 6.12)
ae3256 Shape_definition <characterizes shape of> one Item_definition
ae3257 Shape_definition <characterizes shape of> many Item_definition
ae3258 Shape_definition <defines the shape of> zero Assembly_component_relationship (6.8, 6.9, 6.10, 6.11, 6.12)
ae3259 Shape_definition <defines the shape of> one Assembly_component_relationship
ae3260 Shape_definition <defines the shape of> many Assembly_component_relationship
ae3261 Shape_definition <defines the shape of> zero Input_item_die_relationship (6.8, 6.9, 6.10, 6.11, 6.12)
ae3262 Shape_definition <defines the shape of> one Input_item_die_relationship
ae3263 Shape_definition <defines the shape of> many Input_item_die_relationship
ae3264 Shape_definition <defines the shape of> zero Mating_relationship (6.8, 6.9, 6.10, 6.11, 6.12)
ae3265 Shape_definition <defines the shape of> one Mating_relationship
ae3266 Shape_definition <defines the shape of> many Mating_relationship
ae3267 Shape_definition <is represented by> zero Representation_element (6.8, 6.9, 6.10, 6.11, 6.12)
ae3268 Shape_definition <is represented by> one Representation_element (6.10)
ae3269 Shape_definition <is represented by> many Representation_element
ae3270 Shape_definition <has as default uncertainty> zero Coincidence_defaults (6.8, 6.9, 6.10, 6.11, 6.12)
ae3271 Shape_definition <has as default uncertainty> one Coincidence_defaults
ae3272 Shape_definition <has as default uncertainty> many Coincidence_defaults

lx. Shape_definition_relationship

ae3322 Shape_definition_relationship (6.10)
ae3323 Shape_definition_relationship with relationship_description (6.10)
ae3324 Shape_definition_relationship <has as primary> zero Shape_definition
ae3325 Shape_definition_relationship <has as primary> one Shape_definition
ae3326 Shape_definition_relationship <has as primary> many Shape_definition (6.10)
ae3327 Shape_definition_relationship <has as secondary> zero Shape_definition
ae3328 Shape_definition_relationship <has as secondary> one Shape_definition
ae3329 Shape_definition_relationship <has as secondary> many Shape_definition (6.10)

lxi. Shape_tolerance

ae3379 Shape_tolerance
ae3380 Shape_tolerance with tolerance_condition = REGARDLESS_OF_FEATURE_SIZE
ae3381 Shape_tolerance with tolerance_condition = MAXIMUM_MATERIAL_CONDITION
ae3382 Shape_tolerance with tolerance_condition = LEAST_MATERIAL_CONDITION
ae3383 Shape_tolerance with tolerance_datum
ae3384 Shape_tolerance with tolerance_type
ae3385 Shape_tolerance <is associated with> zero Die_shape_definition
ae3386 Shape_tolerance <is associated with> one Die_shape_definition
ae3387 Shape_tolerance <is associated with> many Die_shape_definition
ae3388 Shape_tolerance <is associated with> zero Feature_shape_definition
ae3389 Shape_tolerance <is associated with> one Feature_shape_definition
ae3390 Shape_tolerance <is associated with> many Feature_shape_definition
ae3391 Shape_tolerance <is associated with> zero Material_shape_definition
ae3392 Shape_tolerance <is associated with> one Material_shape_definition
ae3393 Shape_tolerance <is associated with> many Material_shape_definition
ae3394 Shape_tolerance <is associated with> zero Part_shape_definition
ae3395 Shape_tolerance <is associated with> one Part_shape_definition
ae3396 Shape_tolerance <is associated with> many Part_shape_definition
ae3397 Shape_tolerance <is bounded by> zero Tolerance_bound
ae3398 Shape_tolerance <is bounded by> one Tolerance_bound
ae3399 Shape_tolerance <is bounded by> many Tolerance_bound

lxii. Similarity_relationship

ae3449 Similarity_relationship (6.16)

lxiii. Size_dimension

ae3499 Size_dimension

lxiv. Solid_representation

ae3549 Solid_representation (6.11, 6.12)
ae3550 Solid_representation with B_rep (6.11, 6.12)
ae3551 Solid_representation with CSG

lxv. Specified_material_relationship

ae3601 Specified_material_relationship (6.20)
ae3602 Specified_material_relationship with material_quantity (6.20)
ae3603 Specified_material_relationship <substitutes for> zero Specified_material_relationship (6.20)
ae3604 Specified_material_relationship <substitutes for> one Specified_material_relationship
ae3605 Specified_material_relationship <substitutes for> many Specified_material_relationship
ae3606 Specified_material_relationship <is a substitute of> zero Specified_material_relationship

(6.20)
ae3607 Specified_material_relationship <is a substitute of> one Specified_material_relationship
ae3608 Specified_material_relationship <is a substitute of> many Specified_material_relationship

lxvi. Start_order

ae3658 Start_order (6.3, 6.23, 6.24)
ae3659 Start_order <is implemented by> zero External_order (6.3, 6.23, 6.24)
ae3660 Start_order <is implemented by> one External_order
ae3661 Start_order <is implemented by> many External_order
ae3662 Start_order <is initiated by> zero Work_item (6.3, 6.24)
ae3663 Start_order <is initiated by> one Work_item (6.23)
ae3664 Start_order <is initiated by> many Work_item

lxvii. Start_request

ae3714 Start_request (6.1, 6.3, 6.23, 6.24)
ae3715 Start_request with request_description (6.1, 6.3, 6.23, 6.24)
ae3716 Start_request with request_justification (6.1, 6.3, 6.23, 6.24)

lxviii. Surface_representation

ae3766 Surface_representation (6.9, 6.10)
ae3767 Surface_representation with surface_direction (6.9)
ae3768 Surface_representation with surface_thickness (6.9)

lxix. Symmetrical_item_relationship

ae3818 Symmetrical_item_relationship (6.17)

lxx. Tolerance_bound

ae3868 Tolerance_bound
ae3869 Tolerance_bound <bounds> zero Shape_tolerance
ae3870 Tolerance_bound <bounds> one Shape_tolerance
ae3871 Tolerance_bound <bounds> many Shape_tolerance

lxxi. Tolerance_value

ae3921 Tolerance_value
ae3922 Tolerance_value with unit_of_measure
ae3923 Tolerance_value with value
ae3924 Tolerance_value <is lower limit for> zero Dimension_tolerance_range
ae3925 Tolerance_value <is lower limit for> one Dimension_tolerance_range
ae3926 Tolerance_value <is lower limit for> many Dimension_tolerance_range

ae3927 Tolerance_value <is upper limit for> zero Dimension_tolerance_range
ae3928 Tolerance_value <is upper limit for> one Dimension_tolerance_range
ae3929 Tolerance_value <is upper limit for> many Dimension_tolerance_range

lxxii. Wireframe_representation

ae3979 Wireframe_representation (6.8)

lxxiii. Work_item

ae4029 Work_item 96.23)
ae4030 Work_item with applicable_standards
ae4031 Work_item with approval (6.23)
ae4032 Work_item with completion_date_and_time (6.23)
ae4033 Work_item with order_date_and_time (6.23)
ae4034 Work_item with preliminary_review_date_and_time (6.23)
ae4035 Work_item with priority
ae4036 Work_item with start_date_and_time (6.23)
ae4037 Work_item with work_description
ae4038 Work_item with work_requirements
ae4039 Work_item <initiates> zero Start_order
ae4040 Work_item <initiates> one Start_order (6.23)
ae4041 Work_item <initiates> many Start_order
ae4042 Work_item <is the subject of> zero Change_order (6.23)
ae4043 Work_item <is the subject of> one Change_order
ae4044 Work_item <is the subject of> many Change_order
ae4045 Work_item <is the resultant of> zero Change_order (6.23)
ae4046 Work_item <is the resultant of> one Change_order
ae4047 Work_item <is the resultant of> many Change_order

lxxiv. Work_order

ae4097 Work_order (6.3, 6.4, 6.23, 6.24)
ae4098 Work_order with applicable_standards (6.3, 6.4)
ae4099 Work_order with approval (6.3, 6.4, 6.23, 6.24)
ae4100 Work_order with completion_date_and_time (6.3, 6.4)
ae4101 Work_order with order_date_and_time (6.3, 6.4)
ae4102 Work_order with preliminary_review_date_and_time (6.3, 6.4)
ae4103 Work_order with priority (6.3, 6.4, 6.23, 6.24)
ae4104 Work_order with production_volume (6.3, 6.4)
ae4105 Work_order with start_date_and_time (6.3, 6.4)
ae4106 Work_order with work_description (6.3, 6.4, 6.23, 6.24)
ae4107 Work_order with work_order_number (6.3, 6.4, 6.23, 6.24)
ae4108 Work_order with work_requirements
ae4109 Work_order <is primary in> zero Work_order_relationship (6.3, 6.4, 6.23, 6.24)
ae4110 Work_order <is primary in> one Work_order_relationship (6.24)

ae4111 Work_order <is primary in> many Work_order_relationship
ae4112 Work_order <is secondary in> zero Work_order_relationship (6.3, 6.4, 6.23, 6.24)
ae4113 Work_order <is secondary in> one Work_order_relationship (6.24)
ae4114 Work_order <is secondary in> many Work_order_relationship
ae4115 Work_order <is carried out by> zero Work_order_responsibility (6.3, 6.4, 6.23, 6.24)
ae4116 Work_order <is carried out by> one Work_order_responsibility
ae4117 Work_order <is carried out by> many Work_order_responsibility
ae4118 Work_order <results from> zero Work_request (6.3, 6.4, 6.23, 6.24)
ae4119 Work_order <results from> one Work_request
ae4120 Work_order <results from> many Work_request

lxxv. Work_order_relationship

ae4170 Work_order_relationship (6.24)
ae4171 Work_order_relationship with description (6.24)
ae4172 Work_order_relationship <has as primary> zero Work_order
ae4173 Work_order_relationship <has as primary> one Work_order
ae4174 Work_order_relationship <has as primary> many Work_order (6.24)
ae4175 Work_order_relationship <has as secondary> zero Work_order
ae4176 Work_order_relationship <has as secondary> one Work_order
ae4177 Work_order_relationship <has as secondary> many Work_order (6.24)

lxxvi. Work_order_responsibility

ae4227 Work_order_responsibility (6.4)
ae4228 Work_order_responsibility with role (6.4)
ae4229 Work_order_responsibility <is responsible for> zero Work_order (6.4)
ae4230 Work_order_responsibility <is responsible for> one Work_order
ae4231 Work_order_responsibility <is responsible for> many Work_order

lxxvii. Work_request

ae4281 Work_request (6.1, 6.2, 6.3 6.4, 6.23, 6.24)
ae4282 Work_request with date_and_time_of_request (6.1, 6.2, 6.4, 6.23, 6.24)
ae4283 Work_request with requestor (6.1, 6.2, 6.3, 6.4, 6.23, 6.24)
ae4284 Work_request with work_request_identification (6.1, 6.2, 6.3, 6.4, 6.23, 6.24)
ae4285 Work_request <results in> zero Work_order (6.1, 6.2, 6.3, 6.4, 6.23, 6.24)
ae4286 Work_request <results in> one Work_order
ae4287 Work_request <results in> many Work_order

b. AIM test purposes

AIM test purposes are identified by the prefix "aim" in the test purpose identifier. Each test purpose derived from the AIM EXPRESS shall be interpreted as given in the following statement: the postprocessor shall accept the input in accordance with the AIM EXPRESS structure corresponding to this test purpose. This implies that the semantics of the application element represented by the AIM

element are preserved by the IUT between the input and output of a test according to the reference path specified in the mapping table of the AP. This also implies no violations of any constraints (e.g., where rules or global rules) that apply to the AIM element. AIM test purposes apply to the input specifications of postprocessor test cases only. AIM test purposes are derived directly from the expanded EXPRESS listing contained in annex A of ISO 10303-207 as follows:

— AIM entities. A test purpose derived from an AIM entity is a simple statement of the entity name.

— AIM entity attributes. A test purpose derived from an AIM entity attribute is a statement of the AIM entity with a given attribute.

Each AIM entity test purpose is grouped with its attribute test purposes. Excluded test purposes can be found in Annex D.

i. Action_Directive

aim2 Action_Directive (6.3, 6.4, 6.23, 6.24)
aim3 Action_Directive with requests of one element (6.3, 6.23, 6.24)
aim4 Action_Directive with requests of many elements

ii. Action_Method_With_Associated_Documents

aim7 Action_Method_With_Associated_Documents (6.2, 6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim8 Action_Method_With_Associated_Documents with documents of one element (6.2, 6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim9 Action_Method_With_Associated_Documents with documents of many elements

iii. Action_Property

aim10 Action_Property (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim11 Action_Property with definition as Action (6.4)
aim12 Action_Property with definition as Action_Method (6.3, 6.13, 6.14, 6.15, 6.23, 6.24)
aim13 Action_Property with definition as Action_Method_Relationship
aim14 Action_Property with definition as Action_Relationship

iv. Action_Property_Representation

aim15 Action_Property_Representation (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)

v. Action_Relationship

aim16 Action_Relationship (6.13, 6.14, 6.15)

vi. Action_Resource

aim18 Action_Resource (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim19 Action_Resource with usage of one element (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim20 Action_Resource with usage of many elements
aim21 Action_Resource with usage as Action_Directive
aim22 Action_Resource with usage as Action (6.3, 6.4, 6.23, 6.24)
aim23 Action_Resource with usage as Action_Method (6.13, 6.14, 6.15)

vii. Action_Resource_Relationship

aim24 Action_Resource_Relationship

viii. Action_Resource_Requirement_Relationship

aim32 Action_Resource_Requirement_Relationship

ix. Action_Resource_Type

aim33 Action_Resource_Type (6.3, 6.4, 6.23, 6.24)

x. Advanced_Brep_Shape_Representation

aim34 Advanced_Brep_Shape_Representation (6.11, 6.12)
aim35 Advanced_Brep_Shape_Representation with items of one element (6.11)
aim36 Advanced_Brep_Shape_Representation with items of many elements

xi. Advanced_Face

aim37 Advanced_Face (6.10, 6.11, 6.12)
aim38 Advanced_Face with bounds of one element (6.10)
aim39 Advanced_Face with bounds of many elements (6.11, 6.12)
aim40 Advanced_Face with same_sense = TRUE (6.10, 6.12)
aim41 Advanced_Face with same_sense = FALSE (6.11)

xii. Angular_Location

aim42 Angular_Location
aim43 Angular_Location with angle_selection = equal
aim44 Angular_Location with angle_selection = large
aim45 Angular_Location with angle_selection = small

xiii. Application_Context

aim46 Application_Context (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)

xiv. Application_Protocol_Definition

aim48 Application_Protocol_Definition

xv. **Approval**

aim49 Approval (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15,6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

xvi. **Approval_Date_Time**

aim50 Approval_Date_Time (6.3, 6.4, 6.23, 6.24)
aim51 Approval_Date_Time with date_time as Date (6.3, 6.4)
aim52 Approval_Date_Time with date_time as Date_And_Time
aim53 Approval_Date_Time with date_time as Local_Time

xvii. **Approval_Person_Organization**

aim54 Approval_Person_Organization (6.4, 6.23, 6.24)
aim55 Approval_Person_Organization with person_organization as Organization
aim56 Approval_Person_Organization with person_organization as Person (6.4, 6.23, 6.24)
aim57 Approval_Person_Organization with person_organization as Person_And_Organization

xviii. **Approval_Role**

aim58 Approval_Role (6.3, 6.4, 6.23, 6.24)

xix. **Approval_Status**

aim59 Approval_Status (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

xx. **Assembly_Component_Usage**

aim60 Assembly_Component_Usage (6.25)
aim61 Assembly_Component_Usage with reference_designator (6.25)
aim62 Assembly_Component_Usage with reference_designator not present

xxi. **Assembly_Component_Usage_Substitute**

aim63 Assembly_Component_Usage_Substitute

xxii. **Axis2_Placement_3d**

aim70 Axis2_Placement_3d (6.9, 6.10, 6.11, 6.12)
aim71 Axis2_Placement_3d with axis (6.9, 6.10, 6.11, 6.12)
aim72 Axis2_Placement_3d with axis not present

aim73 Axis2_Placement_3d with ref_direction
aim74 Axis2_Placement_3d with ref_direction not present

xxiii. B_Spline_Curve

aim75 B_Spline_Curve
aim76 B_Spline_Curve with control_points_list of many elements
aim77 B_Spline_Curve with curve_form = circular_arc
aim78 B_Spline_Curve with curve_form = elliptic_arc
aim79 B_Spline_Curve with curve_form = hyperbolic_arc
aim80 B_Spline_Curve with curve_form = parabolic_arc
aim81 B_Spline_Curve with curve_form = polyline_form
aim82 B_Spline_Curve with curve_form = unspecified
aim83 B_Spline_Curve with closed_curve = TRUE
aim84 B_Spline_Curve with closed_curve = FALSE
aim85 B_Spline_Curve with closed_curve = UNKNOWN
aim86 B_Spline_Curve with self_intersect = TRUE
aim87 B_Spline_Curve with self_intersect = FALSE
aim88 B_Spline_Curve with self_intersect = UNKNOWN

xxiv. B_Spline_Curve_With_Knots

aim89 B_Spline_Curve_With_Knots
aim90 B_Spline_Curve_With_Knots with control_points_list of many elements
aim91 B_Spline_Curve_With_Knots with curve_form = circular_arc
aim92 B_Spline_Curve_With_Knots with curve_form = elliptic_arc
aim93 B_Spline_Curve_With_Knots with curve_form = hyperbolic_arc
aim94 B_Spline_Curve_With_Knots with curve_form = parabolic_arc
aim95 B_Spline_Curve_With_Knots with curve_form = polyline_form
aim96 B_Spline_Curve_With_Knots with curve_form = unspecified
aim97 B_Spline_Curve_With_Knots with closed_curve = TRUE
aim98 B_Spline_Curve_With_Knots with closed_curve = FALSE
aim99 B_Spline_Curve_With_Knots with closed_curve = UNKNOWN
aim100 B_Spline_Curve_With_Knots with self_intersect = TRUE
aim101 B_Spline_Curve_With_Knots with self_intersect = FALSE
aim102 B_Spline_Curve_With_Knots with self_intersect = UNKNOWN
aim103 B_Spline_Curve_With_Knots with knot_multiplicities of many elements
aim104 B_Spline_Curve_With_Knots with knots of many elements
aim105 B_Spline_Curve_With_Knots with knot_spec = piecewise_bezier_knots
aim106 B_Spline_Curve_With_Knots with knot_spec = quasi_uniform_knots
aim107 B_Spline_Curve_With_Knots with knot_spec = uniform_knots
aim108 B_Spline_Curve_With_Knots with knot_spec = unspecified

xxv. B_Spline_Surface

aim109 B_Spline_Surface

aim110 B_Spline_Surface with control_points_list of many elements
aim111 B_Spline_Surface with surface_form = plane_surf
aim112 B_Spline_Surface with surface_form = conical_surf
aim113 B_Spline_Surface with surface_form = cylindrical_surf
aim114 B_Spline_Surface with surface_form = generalised_cone
aim115 B_Spline_Surface with surface_form = quadric_surf
aim116 B_Spline_Surface with surface_form = ruled_surf
aim117 B_Spline_Surface with surface_form = spherical_surf
aim118 B_Spline_Surface with surface_form = surf_of_linear_extrusion
aim119 B_Spline_Surface with surface_form = surf_of_revolution
aim120 B_Spline_Surface with surface_form = toroidal_surf
aim121 B_Spline_Surface with surface_form = unspecified
aim122 B_Spline_Surface with u_closed = TRUE
aim123 B_Spline_Surface with u_closed = FALSE
aim124 B_Spline_Surface with u_closed = UNKNOWN
aim125 B_Spline_Surface with v_closed = TRUE
aim126 B_Spline_Surface with v_closed = FALSE
aim127 B_Spline_Surface with v_closed = UNKNOWN
aim128 B_Spline_Surface with self_intersect = TRUE
aim129 B_Spline_Surface with self_intersect = FALSE
aim130 B_Spline_Surface with self_intersect = UNKNOWN

xxvi. B_Spline_Surface_With_Knots

aim131 B_Spline_Surface_With_Knots
aim132 B_Spline_Surface_With_Knots with control_points_list of many elements
aim133 B_Spline_Surface_With_Knots with surface_form = plane_surf
aim134 B_Spline_Surface_With_Knots with surface_form = conical_surf
aim135 B_Spline_Surface_With_Knots with surface_form = cylindrical_surf
aim136 B_Spline_Surface_With_Knots with surface_form = generalised_cone
aim137 B_Spline_Surface_With_Knots with surface_form = quadric_surf
aim138 B_Spline_Surface_With_Knots with surface_form = ruled_surf
aim139 B_Spline_Surface_With_Knots with surface_form = spherical_surf
aim140 B_Spline_Surface_With_Knots with surface_form = surf_of_linear_extrusion
aim141 B_Spline_Surface_With_Knots with surface_form = surf_of_revolution
aim142 B_Spline_Surface_With_Knots with surface_form = toroidal_surf
aim143 B_Spline_Surface_With_Knots with surface_form = unspecified
aim144 B_Spline_Surface_With_Knots with u_closed = TRUE
aim145 B_Spline_Surface_With_Knots with u_closed = FALSE
aim146 B_Spline_Surface_With_Knots with u_closed = UNKNOWN
aim147 B_Spline_Surface_With_Knots with v_closed = TRUE
aim148 B_Spline_Surface_With_Knots with v_closed = FALSE
aim149 B_Spline_Surface_With_Knots with v_closed = UNKNOWN
aim150 B_Spline_Surface_With_Knots with self_intersect = TRUE
aim151 B_Spline_Surface_With_Knots with self_intersect = FALSE
aim152 B_Spline_Surface_With_Knots with self_intersect = UNKNOWN

aim153 B_Spline_Surface_With_Knots with u_multiplicities of many elements
aim154 B_Spline_Surface_With_Knots with v_multiplicities of many elements
aim155 B_Spline_Surface_With_Knots with u_knots of many elements
aim156 B_Spline_Surface_With_Knots with v_knots of many elements
aim157 B_Spline_Surface_With_Knots with knot_spec = piecewise_bezier_knots
aim158 B_Spline_Surface_With_Knots with knot_spec = quasi_uniform_knots
aim159 B_Spline_Surface_With_Knots with knot_spec = uniform_knots
aim160 B_Spline_Surface_With_Knots with knot_spec = unspecified

xxvii. Bezier_Curve

aim161 Bezier_Curve
aim162 Bezier_Curve with control_points_list of many elements
aim163 Bezier_Curve with curve_form = circular_arc
aim164 Bezier_Curve with curve_form = elliptic_arc
aim165 Bezier_Curve with curve_form = hyperbolic_arc
aim166 Bezier_Curve with curve_form = parabolic_arc
aim167 Bezier_Curve with curve_form = polyline_form
aim168 Bezier_Curve with curve_form = unspecified
aim169 Bezier_Curve with closed_curve = TRUE
aim170 Bezier_Curve with closed_curve = FALSE
aim171 Bezier_Curve with closed_curve = UNKNOWN
aim172 Bezier_Curve with self_intersect = TRUE
aim173 Bezier_Curve with self_intersect = FALSE
aim174 Bezier_Curve with self_intersect = UNKNOWN

xxviii. Bezier_Surface

aim175 Bezier_Surface
aim176 Bezier_Surface with control_points_list of many elements
aim177 Bezier_Surface with surface_form = plane_surf
aim178 Bezier_Surface with surface_form = conical_surf
aim179 Bezier_Surface with surface_form = cylindrical_surf
aim180 Bezier_Surface with surface_form = generalised_cone
aim181 Bezier_Surface with surface_form = quadric_surf
aim182 Bezier_Surface with surface_form = ruled_surf
aim183 Bezier_Surface with surface_form = spherical_surf
aim184 Bezier_Surface with surface_form = surf_of_linear_extrusion
aim185 Bezier_Surface with surface_form = surf_of_revolution
aim186 Bezier_Surface with surface_form = toroidal_surf
aim187 Bezier_Surface with surface_form = unspecified
aim188 Bezier_Surface with u_closed = TRUE
aim189 Bezier_Surface with u_closed = FALSE
aim190 Bezier_Surface with u_closed = UNKNOWN
aim191 Bezier_Surface with v_closed = TRUE
aim192 Bezier_Surface with v_closed = FALSE

aim193 Bezier_Surface with v_closed = UNKNOWN
aim194 Bezier_Surface with self_intersect = FALSE
aim195 Bezier_Surface with self_intersect = UNKNOWN

xxix. Block

aim196 Block

xxx. Boolean_Result

aim197 Boolean_Result
aim198 Boolean_Result with operator = difference
aim199 Boolean_Result with operator = intersection
aim200 Boolean_Result with operator = union
aim201 Boolean_Result with first_operand as Boolean_Result
aim202 Boolean_Result with first_operand as Csg_Primitive
aim203 Boolean_Result with first_operand as Half_Space_Solid
aim204 Boolean_Result with first_operand as Solid_Model
aim205 Boolean_Result with second_operand as Boolean_Result
aim206 Boolean_Result with second_operand as Csg_Primitive
aim207 Boolean_Result with second_operand as Half_Space_Solid
aim208 Boolean_Result with second_operand as Solid_Model

xxxi. Bounded_Surface

aim216 Bounded_Surface

xxxii. Box_Domain

aim217 Box_Domain

xxxiii. Boxed_Half_Space

aim218 Boxed_Half_Space
aim219 Boxed_Half_Space with agreement_flag = TRUE
aim220 Boxed_Half_Space with agreement_flag = FALSE

xxxiv. Brep_With_Voids

aim221 Brep_With_Voids
aim222 Brep_With_Voids with voids of one element
aim223 Brep_With_Voids with voids of many elements

xxxv. Calendar_Date

aim224 Calendar_Date (6.1, 6.2, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16,

6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

xxxvi. Cartesian_Point

aim225 Cartesian_Point (6.8, 6.9, 6.10, 6.11, 6.12)
aim226 Cartesian_Point with coordinates of one element (6.8, 6.9, 6.10, 6.11, 6.12)
aim227 Cartesian_Point with coordinates of many elements

xxxvii. Cartesian_Transformation_Operator_3d

aim235 Cartesian_Transformation_Operator_3d
aim236 Cartesian_Transformation_Operator_3d with axis1
aim237 Cartesian_Transformation_Operator_3d with axis1 not present
aim238 Cartesian_Transformation_Operator_3d with axis2
aim239 Cartesian_Transformation_Operator_3d with axis2 not present
aim240 Cartesian_Transformation_Operator_3d with scale
aim241 Cartesian_Transformation_Operator_3d with scale not present
aim242 Cartesian_Transformation_Operator_3d with axis3
aim243 Cartesian_Transformation_Operator_3d with axis3 not present

xxxviii. Change_Order

aim244 Change_Order (6.3)

xxxix. Circle

aim245 Circle (6.9, 6.11, 6.12)
aim247 Circle with position as Axis2_Placement_3d (6.9, 6.11, 6.12)

xl. Composite_Curve_On_Surface

aim257 Composite_Curve_On_Surface
aim258 Composite_Curve_On_Surface with segments of one element
aim259 Composite_Curve_On_Surface with segments of many elements
aim260 Composite_Curve_On_Surface with self_intersect = TRUE
aim261 Composite_Curve_On_Surface with self_intersect = FALSE
aim262 Composite_Curve_On_Surface with self_intersect = UNKNOWN

xli. Configuration_Item

aim271 Configuration_Item (6.25)
aim272 Configuration_Item with description
aim273 Configuration_Item with description not present (6.25)
aim274 Configuration_Item with purpose
aim275 Configuration_Item with purpose not present (6.25)

xlii. Conic

aim276 Conic
aim277 Conic with position as Axis2_Placement_2d
aim278 Conic with position as Axis2_Placement_3d

xliii. Conical_Surface

aim279 Conical_Surface (6.9, 6.12)

xliv. Connected_Edge_Set

aim280 Connected_Edge_Set
aim281 Connected_Edge_Set with ces_edges of one element
aim282 Connected_Edge_Set with ces_edges of many elements

xlv. Context_Dependent_Unit

aim286 Context_Dependent_Unit (6.3, 6.13, 6.14, 6.15, 6.18, 6.23, 6.24)

xlvi. Contract

aim287 Contract (6.4, 6.7, 6.8, 6.9, 6.20)

xlvii. Contract_Type

aim288 Contract_Type (6.4, 6.7, 6.8, 6.9)

xlviii. Conversion_Based_Unit

aim289 Conversion_Based_Unit (6.9)

xlix. Coordinated_Universal_Time_Offset

aim290 Coordinated_Universal_Time_Offset (6.25)
aim291 Coordinated_Universal_Time_Offset with minute_offset
aim292 Coordinated_Universal_Time_Offset with minute_offset not present
aim293 Coordinated_Universal_Time_Offset with sense = ahead (6.25)
aim294 Coordinated_Universal_Time_Offset with sense = behind

l. Csg_Shape_Representation

aim295 Csg_Shape_Representation
aim296 Csg_Shape_Representation with items of one element
aim297 Csg_Shape_Representation with items of many elements

li. Csg_Solid

aim298 Csg_Solid
aim299 Csg_Solid with tree_root_expression as Boolean_Result
aim300 Csg_Solid with tree_root_expression as Csg_Primitive

lii. Curve

aim301 Curve
aim302 Curve_Bounded_Surface (6.9)
aim303 Curve_Bounded_Surface with boundaries of one element (6.9)
aim304 Curve_Bounded_Surface with boundaries of many elements
aim305 Curve_Bounded_Surface with implicit_outer = TRUE
aim306 Curve_Bounded_Surface with implicit_outer = FALSE (6.9)

liii. Curve_Replica

aim307 Curve_Replica

liv. Cylindrical_Surface

aim308 Cylindrical_Surface (6.11, 6.12)

lv. Date_And_Time

aim310 Date_And_Time (6.25)

lvi. Date_Role

aim311 Date_Role (6.1, 6.2, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.24)

lvii. Date_Time_Role

aim312 Date_Time_Role

lviii. Dated_Effectivity

aim313 Dated_Effectivity (6.25)
aim314 Dated_Effectivity with effectivity_end_date (6.25)
aim315 Dated_Effectivity with effectivity_end_date not present

lix. Datum

aim316 Datum (6.9, 6.10)
aim317 Datum with product_definitional = TRUE (6.9, 6.10)

aim318 Datum with product_definitional = FALSE
aim319 Datum with product_definitional = UNKNOWN

lx. Datum_Reference

aim320 Datum_Reference

lxi. Datum_Target

aim321 Datum_Target
aim322 Datum_Target with product_definitional = TRUE
aim323 Datum_Target with product_definitional = FALSE
aim324 Datum_Target with product_definitional = UNKNOWN

lxii. Definitional_Representation

aim325 Definitional_Representation
aim326 Definitional_Representation with items of one element
aim327 Definitional_Representation with items of many elements

lxiii. Degenerate_Toroidal_Surface

aim329 Degenerate_Toroidal_Surface
aim330 Degenerate_Toroidal_Surface with select_outer = TRUE
aim331 Degenerate_Toroidal_Surface with select_outer = FALSE

lxiv. Derived_Unit

aim332 Derived_Unit
aim333 Derived_Unit with elements of one element
aim334 Derived_Unit with elements of many elements

lxv. Derived_Unit_Element

aim335 Derived_Unit_Element

lxvi. Descriptive_Representation_Item

aim336 Descriptive_Representation_Item

lxvii. Die_Definition_Constraint_Relationship

aim337 Die_Definition_Constraint_Relationship

lxviii. Dimensional_Characteristic_Representation

aim338 Dimensional_Characteristic_Representation (6.9, 6.10)
aim339 Dimensional_Characteristic_Representation with dimension as Dimensional_Location (6.9, 6.10)
aim340 Dimensional_Characteristic_Representation with dimension as Dimensional_Size

lxix. Dimensional_Exponents

aim341 Dimensional_Exponents (6.3, 6.4, 6.9, 6.11, 6.12, 6.13, 6.14, 6.15, 6.18, 6.20, 6.23, 6.24)

lxx. Dimensional_Location

aim342 Dimensional_Location (6.9, 6.10)

lxxi. Dimensional_Location_With_Path

aim343 Dimensional_Location_With_Path

lxxii. Dimensional_Size

aim344 Dimensional_Size

lxxiii. Directed_Action

aim345 Directed_Action (6.3,6.4, 6.23, 6.24)

lxxiv. Direction

aim346 Direction (6.9, 6.10, 6.11, 6.12)
aim347 Direction with direction_ratios of many elements

lxxv. Document

aim348 Document (6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

lxxvi. Document_Type

aim349 Document_Type (6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17,6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

lxxvii. Edge_Based_Wireframe_Model

aim351 Edge_Based_Wireframe_Model
aim352 Edge_Based_Wireframe_Model with ebwm_boundary of one element
aim353 Edge_Based_Wireframe_Model with ebwm_boundary of many elements

lxxviii. Edge_Based_Wireframe_Shape_Representation

aim354 Edge_Based_Wireframe_Shape_Representation
aim355 Edge_Based_Wireframe_Shape_Representation with items of one element
aim356 Edge_Based_Wireframe_Shape_Representation with items of many elements

lxxix. Edge_Curve

aim357 Edge_Curve (6.10, 6.11, 6.12)
aim358 Edge_Curve with same_sense = TRUE (6.10, 6.11, 6.12)
aim359 Edge_Curve with same_sense = FALSE

lxxx. Edge_Loop

aim360 Edge_Loop (6.10, 6.11, 6.12)
aim361 Edge_Loop with edge_list of one element (6.11, 6.12)
aim362 Edge_Loop with edge_list of many elements (6.10)

lxxxi. Effectivity

aim363 Effectivity

lxxxii. Ellipse

aim365 Ellipse
aim367 Ellipse with position as Axis2_Placement_3d

lxxxiii. Evaluated_Degenerate_Pcurve

aim368 Evaluated_Degenerate_Pcurve

lxxxiv. Executed_Action

aim369 Executed_Action (6.3, 6.23)

lxxxv. Extruded_Area_Solid

aim370 Extruded_Area_Solid

lxxxvi. Face

aim371 Face
aim372 Face with bounds of one element
aim373 Face with bounds of many elements

lxxxvii. Face_Outer_Bound

aim377 Face_Outer_Bound (6.10, 6.11, 6.12)
aim378 Face_Outer_Bound with orientation = TRUE (6.10)
aim379 Face_Outer_Bound with orientation = FALSE (6.11, 6.12)

lxxxviii. Faceted_Brep

aim385 Faceted_Brep

lxxxix. Faceted_Brep_Shape_Representation

aim386 Faceted_Brep_Shape_Representation
aim387 Faceted_Brep_Shape_Representation with items of one element
aim388 Faceted_Brep_Shape_Representation with items of many elements

xc. Geometric_Curve_Set

aim390 Geometric_Curve_Set (6.8)
aim391 Geometric_Curve_Set with elements of one element
aim392 Geometric_Curve_Set with elements of many elements (6.8)
aim393 Geometric_Curve_Set with elements as Curve
aim394 Geometric_Curve_Set with elements as Point (6.8)
aim395 Geometric_Curve_Set with elements as Surface

xci. Geometric_Representation_Context

aim396 Geometric_Representation_Context (6.8, 6.9, 6.10, 6.11, 6.12)

xcii. Geometric_Representation_Item

aim397 Geometric_Representation_Item (6.11, 6.12)

xciii. Geometric_Tolerance_elements

aim404 Geometric_Tolerance_elements

xciv. Geometric_Tolerance_With_Datum_Reference

aim405 Geometric_Tolerance_With_Datum_Reference

aim406 Geometric_Tolerance_With_Datum_Reference with datum_system of one element
aim407 Geometric_Tolerance_With_Datum_Reference with datum_system of many elements

xcv. Geometrically_Bounded_Surface_Shape_Representation

aim408 Geometrically_Bounded_Surface_Shape_Representation (6.9)
aim409 Geometrically_Bounded_Surface_Shape_Representation with items of one element
aim410 Geometrically_Bounded_Surface_Shape_Representation with items of many elements

xcvi. Geometrically_Bounded_Wireframe_Shape_Representation

aim411 Geometrically_Bounded_Wireframe_Shape_Representation (6.8)
aim412 Geometrically_Bounded_Wireframe_Shape_Representation with items of one element (6.8)
aim413 Geometrically_Bounded_Wireframe_Shape_Representation with items of many elements

xcvii. Global_Uncertainty_Assigned_Context

aim414 Global_Uncertainty_Assigned_Context (6.8, 6.9, 6.10, 6.11, 6.12)
aim415 Global_Uncertainty_Assigned_Context with uncertainty of one element (6.8, 6.11, 6.12)
aim416 Global_Uncertainty_Assigned_Context with uncertainty of many elements (6.10)

xcviii. Hyperbola

aim420 Hyperbola
aim422 Hyperbola with position as Axis2_Placement_3d

xcix. Input_Item_Die_Relationship

aim423 Input_Item_Die_Relationship (6.21)

c. Intersection_Curve

aim424 Intersection_Curve
aim425 Intersection_Curve with associated_geometry of one element
aim426 Intersection_Curve with associated_geometry of many elements
aim427 Intersection_Curve with associated_geometry as Pcurve
aim428 Intersection_Curve with associated_geometry as Surface
aim429 Intersection_Curve with master_representation = curve_3d
aim430 Intersection_Curve with master_representation = pcurve_s1
aim431 Intersection_Curve with master_representation = pcurve_s2

ci. Item_Defined_Transformation

aim432 Item_Defined_Transformation

cii. Length_Measure_With_Unit

aim433 Length_Measure_With_Unit (6.9)
aim434 Length_Measure_With_Unit with value_component as Count_Measure
aim435 Length_Measure_With_Unit with value_component as Length_Measure
aim436 Length_Measure_With_Unit with value_component as Mass_Measure
aim437 Length_Measure_With_Unit with value_component as Parameter_Value
aim438 Length_Measure_With_Unit with value_component as Plane_Angle_Measure
aim439 Length_Measure_With_Unit with value_component as Positive_Length_Measure (6.9)
aim440 Length_Measure_With_Unit with value_component as Positive_Plane_Angle_Measure
aim441 Length_Measure_With_Unit with unit_component as Derived_Unit
aim442 Length_Measure_With_Unit with unit_component as Named_Unit

ciii. Length_Unit

aim443 Length_Unit (6.8, 6.9, 6.10, 6.11)

civ. Limits_And_Fits

aim444 Limits_And_Fits

cv. Line

aim445 Line (6.10)

cvi. Local_Time

aim446 Local_Time (6.25)
aim447 Local_Time with minute_component
aim448 Local_Time with minute_component not present (6.25)
aim449 Local_Time with second_component
aim450 Local_Time with second_component not present (6.25)

cvii. Make_From_Usage_Option

aim452 Make_From_Usage_Option (6.20)

cviii. Make_From_Usage_Option_Group

aim453 Make_From_Usage_Option_Group
aim454 Make_From_Usage_Option_Group with members of many elements

cix. Manifold_Solid_Brep

aim455 Manifold_Solid_Brep (6.11, 6.12)

cx. Manifold_Surface_Shape_Representation

aim456 Manifold_Surface_Shape_Representation (6.10)
aim457 Manifold_Surface_Shape_Representation with items of one element (6.10)
aim458 Manifold_Surface_Shape_Representation with items of many elements

cxi. Mapped_Item

aim459 Mapped_Item

cxii. Material_Property

aim460 Material_Property
aim461 Material_Property with definition as Characterized_Product_Definition
aim462 Material_Property with definition as Shape_Definition

cxiii. Measure_Representation_Item

aim463 Measure_Representation_Item (6.3, 6.4, 6.9, 6.10, 6.13, 6.14, 6.15, 6.23, 6.24)
aim464 Measure_Representation_Item with value_component as Count_Measure (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim465 Measure_Representation_Item with value_component as Length_Measure (6.15)
aim466 Measure_Representation_Item with value_component as Mass_Measure
aim467 Measure_Representation_Item with value_component as Parameter_Value
aim468 Measure_Representation_Item with value_component as Plane_Angle_Measure
aim469 Measure_Representation_Item with value_component as Positive_Length_Measure
aim470 Measure_Representation_Item with value_component as Positive_Plane_Angle_Measure
aim471 Measure_Representation_Item with unit_component as Derived_Unit
aim472 Measure_Representation_Item with unit_component as Named_Unit (6.3, 6.4)

cxiv. Measure_With_Unit

aim473 Measure_With_Unit (6.18, 6.20)
aim474 Measure_With_Unit with value_component as Count_Measure (6.18, 6.20)
aim475 Measure_With_Unit with value_component as Length_Measure
aim476 Measure_With_Unit with value_component as Mass_Measure
aim477 Measure_With_Unit with value_component as Parameter_Value
aim478 Measure_With_Unit with value_component as Plane_Angle_Measure
aim479 Measure_With_Unit with value_component as Positive_Length_Measure
aim480 Measure_With_Unit with value_component as Positive_Plane_Angle_Measure
aim481 Measure_With_Unit with unit_component as Derived_Unit
aim482 Measure_With_Unit with unit_component as Named_Unit

cxv. Modified_Geometric_Tolerance

aim483 Modified_Geometric_Tolerance
aim484 Modified_Geometric_Tolerance with modifier = least_material_condition

aim485 Modified_Geometric_Tolerance with modifier = maximum_material_condition
aim486 Modified_Geometric_Tolerance with modifier = regardless_of_feature_size

cxvi. Offset_Curve_3d

aim488 Offset_Curve_3d
aim489 Offset_Curve_3d with self_intersect = TRUE
aim490 Offset_Curve_3d with self_intersect = FALSE
aim491 Offset_Curve_3d with self_intersect = UNKNOWN

cxvii. Offset_Surface

aim492 Offset_Surface
aim493 Offset_Surface with self_intersect = TRUE
aim494 Offset_Surface with self_intersect = FALSE
aim495 Offset_Surface with self_intersect = UNKNOWN

cxviii. Ordinal_Date

aim499 Ordinal_Date

cxix. Organization

aim500 Organization (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim501 Organization with id (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim502 Organization with id not present

cxx. Organization_Role

aim503 Organization_Role (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

cxxi. Oriented_Closed_Shell

aim504 Oriented_Closed_Shell
aim505 Oriented_Closed_Shell with cfs_faces of one element
aim506 Oriented_Closed_Shell with cfs_faces of many elements
aim507 Oriented_Closed_Shell with orientation = TRUE
aim508 Oriented_Closed_Shell with orientation = FALSE

cxxii. Oriented_Edge

aim509 Oriented_Edge (6.10, 6.11, 6.12)
aim510 Oriented_Edge with orientation = TRUE (6.10, 6.11, 6.12)

aim511 Oriented_Edge with orientation = FALSE

cxxiii. Oriented_Face

aim512 Oriented_Face
aim513 Oriented_Face with bounds of one element
aim514 Oriented_Face with bounds of many elements
aim515 Oriented_Face with orientation = TRUE
aim516 Oriented_Face with orientation = FALSE

cxxiv. Oriented_Open_Shell

aim517 Oriented_Open_Shell
aim518 Oriented_Open_Shell with cfs_faces of one element
aim519 Oriented_Open_Shell with cfs_faces of many elements
aim520 Oriented_Open_Shell with orientation = TRUE
aim521 Oriented_Open_Shell with orientation = FALSE

cxxv. Oriented_Path

aim522 Oriented_Path
aim523 Oriented_Path with edge_list of one element
aim524 Oriented_Path with edge_list of many elements
aim525 Oriented_Path with orientation = TRUE
aim526 Oriented_Path with orientation = FALSE

cxxvi. Outer_Boundary_Curve

aim527 Outer_Boundary_Curve (6.9)
aim528 Outer_Boundary_Curve with segments of one element (6.9)
aim529 Outer_Boundary_Curve with segments of many elements
aim530 Outer_Boundary_Curve with self_intersect = TRUE
aim531 Outer_Boundary_Curve with self_intersect = FALSE
aim532 Outer_Boundary_Curve with self_intersect = UNKNOWN (6.9)

cxxvii. Parabola

aim533 Parabola
aim534 Parabola with position as Axis2_Placement_2d
aim535 Parabola with position as Axis2_Placement_3d

cxxviii. Parametric_Representation_Context

aim536 Parametric_Representation_Context

cxxix. Pcurve

aim540 Pcurve

cxxx. Person

aim541 Person (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim542 Person with last_name (6.1, 6.4, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.18, 6.23)
aim543 Person with last_name not present (6.2, 6.3, 6.4, 6.5, 6.6, 6.16, 6.17, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim544 Person with first_name (6.1, 6.4, 6.8, 6.9, 6.10, 6.11, 6.12, 6.14, 6.15,6.18, 6.23)
aim545 Person with first_name not present (6.2, 6.3, 6.4, 6.5, 6.6, 6.16, 6.17, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim546 Person with middle_names of one element
aim547 Person with middle_names of many elements
aim548 Person with middle_names not present (6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim549 Person with prefix_titles of one element
aim550 Person with prefix_titles of many elements
aim551 Person with prefix_titles not present (6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.14, 6.15, 6.16, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim552 Person with suffix_titles of one element
aim553 Person with suffix_titles of many elements
aim554 Person with suffix_titles not present (6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.14, 6.15, 6.16, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

cxxxi. Person_And_Organization

aim555 Person_And_Organization (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cxxxii. Person_And_Organization_Role

aim556 Person_And_Organization_Role (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cxxxiii. Person_Role

aim557 Person_Role elements (6.1, 6.2, 6.3, 6.4, 6.5, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)

cxxxiv. Physically_Modelled_Product_Definition

aim558 Physically_Modelled_Product_Definition

cxxxv. Plane

aim560 Plane (6.9, 6.10, 6.11, 6.12)

cxxxvi. Plane_Angle_Measure_With_Unit

aim561 Plane_Angle_Measure_With_Unit (6.9)
aim562 Plane_Angle_Measure_With_Unit with value_component as Count_Measure
aim563 Plane_Angle_Measure_With_Unit with value_component as Length_Measure
aim564 Plane_Angle_Measure_With_Unit with value_component as Mass_Measure
aim565 Plane_Angle_Measure_With_Unit with value_component as Parameter_Value
aim566 Plane_Angle_Measure_With_Unit with value_component as Plane_Angle_Measure
aim567 Plane_Angle_Measure_With_Unit with value_component as Positive_Length_Measure
aim568 Plane_Angle_Measure_With_Unit with value_component as Positive_Plane_Angle_Measure (6.9)
aim569 Plane_Angle_Measure_With_Unit with unit_component as Derived_Unit
aim570 Plane_Angle_Measure_With_Unit with unit_component as Named_Unit

cxxxvii. Plane_Angle_Unit

aim571 Plane_Angle_Unit (6.8, 6.9)

cxxxviii. Plus_Minus_Tolerance

aim572 Plus_Minus_Tolerance
aim573 Plus_Minus_Tolerance with range as Limits_And_Fits
aim574 Plus_Minus_Tolerance with range as Tolerance_Value
aim575 Plus_Minus_Tolerance with toleranced_dimension as Dimensional_Location
aim576 Plus_Minus_Tolerance with toleranced_dimension as Dimensional_Size

cxxxix. Point

aim577 Point

cxl. Point_On_Curve

aim578 Point_On_Curve

cxli. Point_On_Surface

aim579 Point_On_Surface

cxlii. Point_Replica

aim580 Point_Replica

cxliii. Poly_Loop

aim581 Poly_Loop
aim582 Poly_Loop with polygon of many elements

cxliv. Polyline

aim583 Polyline (6.8)
aim584 Polyline with points of many elements (6.8)

cxlv. Process_Plan

aim585 Process_Plan (6.13, 6.14, 6.15)

cxlvi. Process_Product_Association

aim586 Process_Product_Association (6.15)
aim587 Process_Product_Association with defined_product as Product_Definition (6.15)
aim588 Process_Product_Association with defined_product as Product_Definition_Relationship

cxlvii. Product

aim589 Product (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
aim590 Product with frame_of_reference of one element (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
aim591 Product with frame_of_reference of many elements

cxlviii. Product_Category_Relationship

aim595 Product_Category_Relationship (6.22)

cxlix. Product_Concept

aim596 Product_Concept (6.25)

cl. Product_Concept_Context

aim597 Product_Concept_Context (6.25)

cli. Product_Context

aim598 Product_Context (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)

clii. Product_Definition

aim599 Product_Definition (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cliii. Product_Definition_Context

aim600 Product_Definition_Context (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cliv. Product_Definition_Effectivity

aim601 Product_Definition_Effectivity (6.25)

clv. Product_Definition_Formation_With_Specified_Source

aim603 Product_Definition_Formation_With_Specified_Source (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim604 Product_Definition_Formation_With_Specified_Source with make_or_buy = bought (6.7, 6.8, 6.9)
aim605 Product_Definition_Formation_With_Specified_Source with make_or_buy = made (6.5, 6.6, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
aim606 Product_Definition_Formation_With_Specified_Source with make_or_buy = not_known

clvi. Product_Definition_Process

aim607 Product_Definition_Process (6.13, 6.14, 6.15)

clvii. Product_Definition_Relationship

aim608 Product_Definition_Relationship (6.15, 6.16, 6.17, 6.18, 6.19)

clviii. Product_Definition_Shape

aim609 Product_Definition_Shape (6.8, 6.9, 6.10, 6.11, 6.12)
aim610 Product_Definition_Shape with definition as Characterized_Product_Definition (6.8, 6.9, 6.10, 6.11, 6.12)
aim611 Product_Definition_Shape with definition as Shape_Definition

clix. Product_Definition_Substitute

aim612 Product_Definition_Substitute

clx. Product_Definition_With_Associated_Documents

aim614 Product_Definition_With_Associated_Documents (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim615 Product_Definition_With_Associated_Documents with documentation_ids of one element (6.5, 6.6, 6.7, 6.8, 6.10, 6.11, 6.12, 6.25)
aim616 Product_Definition_With_Associated_Documents with documentation_ids of many elements (6.7, 6.8, 6.9, 6.16)

clxi. Product_Type

aim622 Product_Type (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
aim623 Product_Type with description (6.5, 6.6, 6.7)
aim624 Product_Type with description not present (6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22, 6.25)
aim625 Product_Type with products of one element (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.22)
aim626 Product_Type with products of many elements

clxii. Promissory_Usage_Occurrence

aim627 Promissory_Usage_Occurrence
aim628 Promissory_Usage_Occurrence with reference_designator
aim629 Promissory_Usage_Occurrence with reference_designator not present

clxiii. Property_Definition

aim630 Property_Definition (6.8, 6.9, 6.10)
aim631 Property_Definition with definition as Characterized_Product_Definition (6.8)
aim632 Property_Definition with definition as Shape_Definition (6.9, 6.10)

clxiv. Quantified_Assembly_Component_Usage

aim634 Quantified_Assembly_Component_Usage (6.18)
aim635 Quantified_Assembly_Component_Usage with reference_designator
aim636 Quantified_Assembly_Component_Usage with reference_designator not present (6.18)

clxv. Quasi_Uniform_Curve

aim637 Quasi_Uniform_Curve
aim638 Quasi_Uniform_Curve with control_points_list of many elements
aim639 Quasi_Uniform_Curve with curve_form = circular_arc
aim640 Quasi_Uniform_Curve with curve_form = elliptic_arc
aim641 Quasi_Uniform_Curve with curve_form = hyperbolic_arc
aim642 Quasi_Uniform_Curve with curve_form = parabolic_arc

aim643 Quasi_Uniform_Curve with curve_form = polyline_form
aim644 Quasi_Uniform_Curve with curve_form = unspecified
aim645 Quasi_Uniform_Curve with closed_curve = TRUE
aim646 Quasi_Uniform_Curve with closed_curve = FALSE
aim647 Quasi_Uniform_Curve with closed_curve = UNKNOWN
aim648 Quasi_Uniform_Curve with self_intersect = TRUE
aim649 Quasi_Uniform_Curve with self_intersect = FALSE
aim650 Quasi_Uniform_Curve with self_intersect = UNKNOWN

clxvi. Quasi_Uniform_Surface

aim651 Quasi_Uniform_Surface
aim652 Quasi_Uniform_Surface with control_points_list of many elements
aim653 Quasi_Uniform_Surface with surface_form = plane_surf
aim654 Quasi_Uniform_Surface with surface_form = conical_surf
aim655 Quasi_Uniform_Surface with surface_form = cylindrical_surf
aim656 Quasi_Uniform_Surface with surface_form = generalised_cone
aim657 Quasi_Uniform_Surface with surface_form = quadric_surf
aim658 Quasi_Uniform_Surface with surface_form = ruled_surf
aim659 Quasi_Uniform_Surface with surface_form = spherical_surf
aim660 Quasi_Uniform_Surface with surface_form = surf_of_linear_extrusion
aim661 Quasi_Uniform_Surface with surface_form = surf_of_revolution
aim662 Quasi_Uniform_Surface with surface_form = toroidal_surf
aim663 Quasi_Uniform_Surface with surface_form = unspecified
aim664 Quasi_Uniform_Surface with u_closed = TRUE
aim665 Quasi_Uniform_Surface with u_closed = FALSE
aim666 Quasi_Uniform_Surface with u_closed = UNKNOWN
aim667 Quasi_Uniform_Surface with v_closed = TRUE
aim668 Quasi_Uniform_Surface with v_closed = FALSE
aim669 Quasi_Uniform_Surface with v_closed = UNKNOWN
aim670 Quasi_Uniform_Surface with self_intersect = TRUE
aim671 Quasi_Uniform_Surface with self_intersect = FALSE
aim672 Quasi_Uniform_Surface with self_intersect = UNKNOWN

clxvii. Rational_B_Spline_Curve

aim673 Rational_B_Spline_Curve
aim674 Rational_B_Spline_Curve with control_points_list of many elements
aim675 Rational_B_Spline_Curve with curve_form = circular_arc
aim676 Rational_B_Spline_Curve with curve_form = elliptic_arc
aim677 Rational_B_Spline_Curve with curve_form = hyperbolic_arc
aim678 Rational_B_Spline_Curve with curve_form = parabolic_arc
aim679 Rational_B_Spline_Curve with curve_form = polyline_form
aim680 Rational_B_Spline_Curve with curve_form = unspecified
aim681 Rational_B_Spline_Curve with closed_curve = TRUE
aim682 Rational_B_Spline_Curve with closed_curve = FALSE

aim683 Rational_B_Spline_Curve with closed_curve = UNKNOWN
aim684 Rational_B_Spline_Curve with self_intersect = TRUE
aim685 Rational_B_Spline_Curve with self_intersect = FALSE
aim686 Rational_B_Spline_Curve with self_intersect = UNKNOWN
aim687 Rational_B_Spline_Curve with weights_data of many elements

clxviii. Rational_B_Spline_Surface

aim688 Rational_B_Spline_Surface
aim689 Rational_B_Spline_Surface with control_points_list of many elements
aim690 Rational_B_Spline_Surface with surface_form = plane_surf
aim691 Rational_B_Spline_Surface with surface_form = conical_surf
aim692 Rational_B_Spline_Surface with surface_form = cylindrical_surf
aim693 Rational_B_Spline_Surface with surface_form = generalised_cone
aim694 Rational_B_Spline_Surface with surface_form = quadric_surf
aim695 Rational_B_Spline_Surface with surface_form = ruled_surf
aim696 Rational_B_Spline_Surface with surface_form = spherical_surf
aim697 Rational_B_Spline_Surface with surface_form = surf_of_linear_extrusion
aim698 Rational_B_Spline_Surface with surface_form = surf_of_revolution
aim699 Rational_B_Spline_Surface with surface_form = toroidal_surf
aim700 Rational_B_Spline_Surface with surface_form = unspecified
aim701 Rational_B_Spline_Surface with u_closed = TRUE
aim702 Rational_B_Spline_Surface with u_closed = FALSE
aim703 Rational_B_Spline_Surface with u_closed = UNKNOWN
aim704 Rational_B_Spline_Surface with v_closed = TRUE
aim705 Rational_B_Spline_Surface with v_closed = FALSE
aim706 Rational_B_Spline_Surface with v_closed = UNKNOWN
aim707 Rational_B_Spline_Surface with self_intersect = TRUE
aim708 Rational_B_Spline_Surface with self_intersect = FALSE
aim709 Rational_B_Spline_Surface with self_intersect = UNKNOWN
aim710 Rational_B_Spline_Surface with weights_data of many elements

clxix. Rectangular_Composite_Surface

aim711 Rectangular_Composite_Surface
aim712 Rectangular_Composite_Surface with segments of one element
aim713 Rectangular_Composite_Surface with segments of many elements

clxx. Rectangular_Trimmed_Surface

aim714 Rectangular_Trimmed_Surface
aim715 Rectangular_Trimmed_Surface with usense = TRUE
aim716 Rectangular_Trimmed_Surface with usense = FALSE
aim717 Rectangular_Trimmed_Surface with vsense = TRUE
aim718 Rectangular_Trimmed_Surface with vsense = FALSE

clxxi. Reparametrised_Composite_Curve_Segment

aim719 Reparametrised_Composite_Curve_Segment
aim720 Reparametrised_Composite_Curve_Segment with transition = cont_same_gradient
aim721 Reparametrised_Composite_Curve_Segment with transition = cont_same_gradient_same_-curvature
aim722 Reparametrised_Composite_Curve_Segment with transition = continuous
aim723 Reparametrised_Composite_Curve_Segment with transition = discontinuous
aim724 Reparametrised_Composite_Curve_Segment with same_sense = TRUE
aim725 Reparametrised_Composite_Curve_Segment with same_sense = FALSE

clxxii. Replacement_Relationship

aim726 Replacement_Relationship

clxxiii. Representation

aim727 Representation (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)
aim728 Representation with items of one element (6.3, 6.4, 6.23, 6.24)
aim729 Representation with items of many elements (6.13, 6.14, 6.15)

clxxiv. Representation_Context

aim730 Representation_Context (6.3, 6.4, 6.13, 6.14, 6.15, 6.23, 6.24)

clxxv. Representation_Item

aim731 Representation_Item (6.4, 6.13, 6.14, 6.15)

clxxvi. Representation_Map

aim732 Representation_Map

clxxvii. Representation_Relationship

aim733 Representation_Relationship

clxxviii. Representation_Relationship_With_Transformation

aim734 Representation_Relationship_With_Transformation
aim735 Representation_Relationship_With_Transformation with transformation_operator as Functionally_-Defined_Transformation
aim736 Representation_Relationship_With_Transformation with transformation_operator as Item_-Defined_Transformation

clxxix. Requirement_For_Action_Resource

aim737 Requirement_For_Action_Resource (6.13, 6.14, 6.15)
aim738 Requirement_For_Action_Resource with operations of one element
aim739 Requirement_For_Action_Resource with operations of many elements (6.13, 6.14, 6.15)
aim740 Requirement_For_Action_Resource with operations as Action
aim741 Requirement_For_Action_Resource with operations as Action_Method (6.13, 6.14, 6.15)
aim742 Requirement_For_Action_Resource with operations as Action_Method_Relationship
aim743 Requirement_For_Action_Resource with operations as Action_Relationship
aim744 Requirement_For_Action_Resource with resources of one element
aim745 Requirement_For_Action_Resource with resources of many elements

clxxx. Resource_Property

aim746 Resource_Property (6.15)
aim747 Resource_Property with resource as Action_Resource
aim748 Resource_Property with resource as Action_Resource_Relationship
aim749 Resource_Property with resource as Action_Resource_Requirement (6.15)
aim750 Resource_Property with resource as Action_Resource_Requirement_Relationship

clxxxi. Resource_Property_Representation

aim751 Resource_Property_Representation (6.15)

clxxxii. Resource_Requirement_Type

aim752 Resource_Requirement_Type

clxxxiii. Revolved_Area_Solid

aim753 Revolved_Area_Solid

clxxxiv. Right_Angular_Wedge

aim754 Right_Angular_Wedge

clxxxv. Right_Circular_Cone

aim755 Right_Circular_Cone

clxxxvi. Right_Circular_Cylinder

aim756 Right_Circular_Cylinder

clxxxvii. Seam_Curve

aim757 Seam_Curve

aim758 Seam_Curve with associated_geometry of one element
aim759 Seam_Curve with associated_geometry of many elements
aim760 Seam_Curve with associated_geometry as Pcurve
aim761 Seam_Curve with associated_geometry as Surface
aim762 Seam_Curve with master_representation = curve_3d
aim763 Seam_Curve with master_representation = pcurve_s1
aim764 Seam_Curve with master_representation = pcurve_s2

clxxxviii. Security_Classification

aim765 Security_Classification (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

clxxxix. Security_Classification_Level

aim766 Security_Classification_Level (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cxc. Sequenced_Product_Definition_Relationship

aim767 Sequenced_Product_Definition_Relationship (6.5, 6.6, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

cxci. Sequential_Method

aim768 Sequential_Method (6.13, 6.14, 6.15)

cxcii. Serial_Numbered_Effectivity

aim770 Serial_Numbered_Effectivity (6.25)
aim771 Serial_Numbered_Effectivity with effectivity_end_id
aim772 Serial_Numbered_Effectivity with effectivity_end_id not present (6.25)

cxciii. Shape_Aspect_Relationship

aim777 Shape_Aspect_Relationship

cxciv. Shape_Definition_Representation

aim778 Shape_Definition_Representation (6.8, 6.9, 6.10, 6.11, 6.12)

cxcv. Shape_Dimension_Representation

aim779 Shape_Dimension_Representation (6.9, 6.10)
aim780 Shape_Dimension_Representation with items of one element
aim781 Shape_Dimension_Representation with items of many elements (6.9)

cxcvi. Shape_Representation_Relationship

aim785 Shape_Representation_Relationship

cxcvii. Sheet_Metal_Action_Assignment

aim786 Sheet_Metal_Action_Assignment (6.23)
aim787 Sheet_Metal_Action_Assignment with items of one element (6.23)
aim788 Sheet_Metal_Action_Assignment with items of many elements
aim789 Sheet_Metal_Action_Assignment with items as Executed_Action (6.23)
aim790 Sheet_Metal_Action_Assignment with items as Process_Plan
aim791 Sheet_Metal_Action_Assignment with items as Product_Definition
aim792 Sheet_Metal_Action_Assignment with items as Product_Definition_Formation

cxcviii. Sheet_Metal_Approval_Assignment

aim793 Sheet_Metal_Approval_Assignment (6.3, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim794 Sheet_Metal_Approval_Assignment with items of one element (6.3, 6.5, 6.6, 6.7,6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.24, 6.25)
aim795 Sheet_Metal_Approval_Assignment with items of many elements (6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23)
aim796 Sheet_Metal_Approval_Assignment with items as Executed_Action (6.3, 6.23, 6.24)
aim797 Sheet_Metal_Approval_Assignment with items as Process_Plan (6.13, 6.14,v6.15)
aim798 Sheet_Metal_Approval_Assignment with items as Product_Definition (6.5, 6.6,6.25)
aim799 Sheet_Metal_Approval_Assignment with items as Product_Definition_Formation (6.7,6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
aim800 Sheet_Metal_Approval_Assignment with items as Sheet_Metal_Action_Assignment

cxcix. Sheet_Metal_Contract_Assignment

aim801 Sheet_Metal_Contract_Assignment (6.4, 6.7, 6.8, 6.9)
aim802 Sheet_Metal_Contract_Assignment with items of one element (6.4, 6.7, 6.8,6.9)
aim803 Sheet_Metal_Contract_Assignment with items of many elements
aim804 Sheet_Metal_Contract_Assignment with items as Change_Order
aim805 Sheet_Metal_Contract_Assignment with items as Executed_Action (6.4)
aim806 Sheet_Metal_Contract_Assignment with items as Product_Definition_Formation_With_-Specified_-Source (6.7, 6.8, 6.9)
aim807 Sheet_Metal_Contract_Assignment with items as Start_Order

cc. Sheet_Metal_Date_And_Time_Assignment

aim808 Sheet_Metal_Date_And_Time_Assignment
aim809 Sheet_Metal_Date_And_Time_Assignment with items of one element
aim810 Sheet_Metal_Date_And_Time_Assignment with items of many elements
aim811 Sheet_Metal_Date_And_Time_Assignment with items as Executed_Action

aim812 Sheet_Metal_Date_And_Time_Assignment with items as Process_Plan
aim813 Sheet_Metal_Date_And_Time_Assignment with items as Product_Concept
aim814 Sheet_Metal_Date_And_Time_Assignment with items as Product_Definition
aim815 Sheet_Metal_Date_And_Time_Assignment with items as Product_Definition_Formation
aim816 Sheet_Metal_Date_And_Time_Assignment with items as Sheet_Metal_Action_Assignment
aim817 Sheet_Metal_Date_And_Time_Assignment with items as Versioned_Action_Request

cci. Sheet_Metal_Date_Assignment

aim818 Sheet_Metal_Date_Assignment (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim819 Sheet_Metal_Date_Assignment with items of one element (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim820 Sheet_Metal_Date_Assignment with items of many elements
aim821 Sheet_Metal_Date_Assignment with items as Executed_Action (6.3, 6.4, 6.23, 6.24)
aim822 Sheet_Metal_Date_Assignment with items as Process_Plan (6.13, 6.14, 6.15)
aim823 Sheet_Metal_Date_Assignment with items as Product_Concept
aim824 Sheet_Metal_Date_Assignment with items as Product_Definition
aim825 Sheet_Metal_Date_Assignment with items as Product_Definition_Formation (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim826 Sheet_Metal_Date_Assignment with items as Sheet_Metal_Action_Assignment
aim827 Sheet_Metal_Date_Assignment with items as Versioned_Action_Request (6.1, 6.2)

ccii. Sheet_Metal_Document_Reference

aim828 Sheet_Metal_Document_Reference (6.3, 6.4, 6.6, 6.7, 6.8, 6.9, 6.13, 6.14, 6.15, 6.18, 6.19, 6.21, 6.23, 6.24)
aim829 Sheet_Metal_Document_Reference with items of one element (6.3, 6.4, 6.6, 6.7,6.8, 6.9, 6.13, 6.14, 6.15, 6.18, 6.19, 6.21, 6.24)
aim830 Sheet_Metal_Document_Reference with items of many elements (6.23)
aim831 Sheet_Metal_Document_Reference with items as Action_Resource_Requirement
aim832 Sheet_Metal_Document_Reference with items as Executed_Action (6.3, 6.4, 6.23, 6.24)
aim833 Sheet_Metal_Document_Reference with items as Process_Plan (6.14, 6.15)
aim834 Sheet_Metal_Document_Reference with items as Product_Definition (6.6, 6.7, 6.8, 6.9, 6.15, 6.18, 6.19, 6.21)
aim835 Sheet_Metal_Document_Reference with items as Sheet_Metal_Action_Assignment

cciii. Sheet_Metal_Organization_Assignment

aim836 Sheet_Metal_Organization_Assignment (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim837 Sheet_Metal_Organization_Assignment with items of one element (6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.23, 6.24, 6.25)
aim838 Sheet_Metal_Organization_Assignment with items of many elements (6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
aim839 Sheet_Metal_Organization_Assignment with items as Change_Order (6.4)

aim840 Sheet_Metal_Organization_Assignment with items as Contract
aim841 Sheet_Metal_Organization_Assignment with items as Executed_Action (6.3, 6.23, 6.24)
aim842 Sheet_Metal_Organization_Assignment with items as Product_Definition (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim843 Sheet_Metal_Organization_Assignment with items as Start_Order

cciv. Sheet_Metal_Person_And_Organization_Assignment

aim844 Sheet_Metal_Person_And_Organization_Assignment (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim845 Sheet_Metal_Person_And_Organization_Assignment with items of one element (6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.25)
aim846 Sheet_Metal_Person_And_Organization_Assignment with items of many elements (6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
aim847 Sheet_Metal_Person_And_Organization_Assignment with items as Change_Order
aim848 Sheet_Metal_Person_And_Organization_Assignment with items as Process_Plan (6.13, 6.14, 6.15)
aim849 Sheet_Metal_Person_And_Organization_Assignment with items as Product_Definition (6.5, 6.6, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

ccv. Sheet_Metal_Person_Assignment

aim850 Sheet_Metal_Person_Assignment (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim851 Sheet_Metal_Person_Assignment with items of one element (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9, 6.10, 6.11, 6.12, 6.18, 6.19, 6.20, 6.21, 6.23, 6.24, 6.25)
aim852 Sheet_Metal_Person_Assignment with items of many elements
aim853 Sheet_Metal_Person_Assignment with items as Change_Order
aim854 Sheet_Metal_Person_Assignment with items as Contract (6.4)
aim855 Sheet_Metal_Person_Assignment with items as Product_Definition (6.5, 6.6, 6.9, 6.10, 6.11, 6.12, 6.18, 6.19, 6.20, 6.21, 6.25)
aim856 Sheet_Metal_Person_Assignment with items as Shape_Aspect
aim857 Sheet_Metal_Person_Assignment with items as Versioned_Action_Request (6.1, 6.2, 6.3, 6.23, 6.24)

ccvi. Sheet_Metal_Security_Classification_Assignment

aim858 Sheet_Metal_Security_Classification_Assignment (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)
aim859 Sheet_Metal_Security_Classification_Assignment with items of one element (6.5, 6.6, 6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.13, 6.14, 6.15, 6.25)
aim860 Sheet_Metal_Security_Classification_Assignment with items of many elements (6.16, 6.17, 6.18, 6.19, 6.20, 6.21)
aim861 Sheet_Metal_Security_Classification_Assignment with items as Process_Plan (6.13, 6.14, 6.15)
aim862 Sheet_Metal_Security_Classification_Assignment with items as Product_Definition (6.5, 6.6,

6.7, 6.8, 6.9, 6.10, 6.11, 6.12, 6.16, 6.17, 6.18, 6.19, 6.20, 6.21, 6.25)

ccvii. Shell_Based_Surface_Model

aim863 Shell_Based_Surface_Model (6.10)
aim864 Shell_Based_Surface_Model with sbsm_boundary of one element
aim865 Shell_Based_Surface_Model with sbsm_boundary of many elements (6.10)
aim866 Shell_Based_Surface_Model with sbsm_boundary as Closed_Shell
aim867 Shell_Based_Surface_Model with sbsm_boundary as Open_Shell (6.10)
aim868 Shell_Based_Surface_Model with sbsm_boundary as Vertex_Shell
aim869 Shell_Based_Surface_Model with sbsm_boundary as Wire_Shell

ccviii. Shell_Based_Wireframe_Model

aim870 Shell_Based_Wireframe_Model
aim871 Shell_Based_Wireframe_Model with sbwm_boundary of one element
aim872 Shell_Based_Wireframe_Model with sbwm_boundary of many elements
aim873 Shell_Based_Wireframe_Model with sbwm_boundary as Closed_Shell
aim874 Shell_Based_Wireframe_Model with sbwm_boundary as Open_Shell
aim875 Shell_Based_Wireframe_Model with sbwm_boundary as Vertex_Shell
aim876 Shell_Based_Wireframe_Model with sbwm_boundary as Wire_Shell

ccix. Shell_Based_Wireframe_Shape_Representation

aim877 Shell_Based_Wireframe_Shape_Representation
aim878 Shell_Based_Wireframe_Shape_Representation with items of one element
aim879 Shell_Based_Wireframe_Shape_Representation with items of many elements

ccx. Si_Unit

aim880 Si_Unit (6.8, 6.9, 6.10, 6.11, 6.15)
aim881 Si_Unit with prefix = atto
aim882 Si_Unit with prefix = centi (6.15)
aim883 Si_Unit with prefix = deca
aim884 Si_Unit with prefix = deci
aim885 Si_Unit with prefix = exa
aim886 Si_Unit with prefix = femto
aim887 Si_Unit with prefix = giga
aim888 Si_Unit with prefix = hecto
aim889 Si_Unit with prefix = kilo (6.15)
aim890 Si_Unit with prefix = mega
aim891 Si_Unit with prefix = micro
aim892 Si_Unit with prefix = milli (6.9, 6.10, 6.11)
aim893 Si_Unit with prefix = nano
aim894 Si_Unit with prefix = peta
aim895 Si_Unit with prefix = pico

aim896 Si_Unit with prefix = tera
aim897 Si_Unit with prefix not present
aim898 Si_Unit with name = ampere
aim899 Si_Unit with name = becquerel
aim900 Si_Unit with name = candela
aim901 Si_Unit with name = coulomb
aim902 Si_Unit with name = degree_celsius
aim903 Si_Unit with name = farad
aim904 Si_Unit with name = gram (6.15)
aim905 Si_Unit with name = gray
aim906 Si_Unit with name = henry
aim907 Si_Unit with name = hertz
aim908 Si_Unit with name = joule
aim909 Si_Unit with name = kelvin
aim910 Si_Unit with name = lumen
aim911 Si_Unit with name = lux
aim912 Si_Unit with name = metre (6.15)
aim913 Si_Unit with name = mole
aim914 Si_Unit with name = newton
aim915 Si_Unit with name = ohm
aim916 Si_Unit with name = pascal
aim917 Si_Unit with name = radian (6.8, 6.9, 6.10)
aim918 Si_Unit with name = second
aim919 Si_Unit with name = siemens
aim920 Si_Unit with name = sievert
aim921 Si_Unit with name = steradian (6.8, 6.9, 6.10)
aim922 Si_Unit with name = tesla
aim923 Si_Unit with name = volt
aim924 Si_Unit with name = watt
aim925 Si_Unit with name = weber
aim926 Solid_Model

ccxi. Solid_Replica

aim927 Solid_Replica

ccxii. Sphere

aim928 Sphere

ccxiii. Spherical_Surface

aim929 Spherical_Surface

ccxiv. Start_Order

aim930 Start_Order (6.3, 6.23, 6.24)

ccxv. Surface_Of_Linear_Extrusion

aim940 Surface_Of_Linear_Extrusion

ccxvi. Surface_Of_Revolution

aim941 Surface_Of_Revolution

ccxvii. Surface_Patch

aim942 Surface_Patch
aim943 Surface_Patch with u_transition = cont_same_gradient
aim944 Surface_Patch with u_transition = cont_same_gradient_same_curvature
aim945 Surface_Patch with u_transition = continuous
aim946 Surface_Patch with u_transition = discontinuous
aim947 Surface_Patch with v_transition = cont_same_gradient
aim948 Surface_Patch with v_transition = cont_same_gradient_same_curvature
aim949 Surface_Patch with v_transition = continuous
aim950 Surface_Patch with v_transition = discontinuous
aim951 Surface_Patch with u_sense = TRUE
aim952 Surface_Patch with u_sense = FALSE
aim953 Surface_Patch with v_sense = TRUE
aim954 Surface_Patch with v_sense = FALSE

ccxviii. Surface_Replica

aim955 Surface_Replica

ccxix. Swept_Area_Solid

aim956 Swept_Area_Solid

ccxx. Tolerance_Value

aim958 Tolerance_Value

ccxxi. Tolerance_Zone

aim959 Tolerance_Zone
aim960 Tolerance_Zone with product_definitional = TRUE
aim961 Tolerance_Zone with product_definitional = FALSE
aim962 Tolerance_Zone with product_definitional = UNKNOWN
aim963 Tolerance_Zone with defining_tolerance of one element
aim964 Tolerance_Zone with defining_tolerance of many elements

ccxxii. Tolerance_Zone_Definition

aim965 Tolerance_Zone_Definition
aim966 Tolerance_Zone_Definition with boundaries of one element
aim967 Tolerance_Zone_Definition with boundaries of many elements

ccxxiii. Tolerance_Zone_Form

aim968 Tolerance_Zone_Form

ccxxiv. Torus

aim971 Torus

ccxxv. Trimmed_Curve

aim972 Trimmed_Curve (6.9)
aim973 Trimmed_Curve with trim_1 of one element (6.9)
aim974 Trimmed_Curve with trim_1 of many elements
aim975 Trimmed_Curve with trim_1 as Cartesian_Point (6.9)
aim976 Trimmed_Curve with trim_1 as Parameter_Value
aim977 Trimmed_Curve with trim_2 of one element (6.9)
aim978 Trimmed_Curve with trim_2 of many elements
aim979 Trimmed_Curve with trim_2 as Cartesian_Point (6.9)
aim980 Trimmed_Curve with trim_2 as Parameter_Value
aim981 Trimmed_Curve with sense_agreement = TRUE (6.9)
aim982 Trimmed_Curve with sense_agreement = FALSE
aim983 Trimmed_Curve with master_representation = cartesian
aim984 Trimmed_Curve with master_representation = parameter
aim985 Trimmed_Curve with master_representation = unspecified

ccxxvi. Uncertainty_Measure_With_Unit

aim986 Uncertainty_Measure_With_Unit (6.8, 6.9, 6.10, 6.11, 6.12)
aim987 Uncertainty_Measure_With_Unit with value_component as Count_Measure
aim988 Uncertainty_Measure_With_Unit with value_component as Length_Measure (6.8, 6.10, 6.11, 6.12)
aim989 Uncertainty_Measure_With_Unit with value_component as Mass_Measure
aim990 Uncertainty_Measure_With_Unit with value_component as Parameter_Value
aim991 Uncertainty_Measure_With_Unit with value_component as Plane_Angle_Measure
aim992 Uncertainty_Measure_With_Unit with value_component as Positive_Length_Measure
aim993 Uncertainty_Measure_With_Unit with value_component as Positive_Plane_Angle_Measure
aim994 Uncertainty_Measure_With_Unit with unit_component as Derived_Unit
aim995 Uncertainty_Measure_With_Unit with unit_component as Named_Unit

ccxxvii. Uniform_Curve

aim996 Uniform_Curve
aim997 Uniform_Curve with control_points_list of many elements
aim998 Uniform_Curve with curve_form = circular_arc
aim999 Uniform_Curve with curve_form = elliptic_arc
aim1000 Uniform_Curve with curve_form = hyperbolic_arc
aim1001 Uniform_Curve with curve_form = parabolic_arc
aim1002 Uniform_Curve with curve_form = polyline_form
aim1003 Uniform_Curve with curve_form = unspecified
aim1004 Uniform_Curve with closed_curve = TRUE
aim1005 Uniform_Curve with closed_curve = FALSE
aim1006 Uniform_Curve with closed_curve = UNKNOWN
aim1007 Uniform_Curve with self_intersect = TRUE
aim1008 Uniform_Curve with self_intersect = FALSE
aim1009 Uniform_Curve with self_intersect = UNKNOWN

ccxxviii. Uniform_Surface

aim1010 Uniform_Surface
aim1011 Uniform_Surface with control_points_list of many elements
aim1012 Uniform_Surface with surface_form = plane_surf
aim1013 Uniform_Surface with surface_form = conical_surf
aim1014 Uniform_Surface with surface_form = cylindrical_surf
aim1015 Uniform_Surface with surface_form = generalised_cone
aim1016 Uniform_Surface with surface_form = quadric_surf
aim1017 Uniform_Surface with surface_form = ruled_surf
aim1018 Uniform_Surface with surface_form = spherical surface
aim1019 Uniform_Surface with surface_form = surf_of_linear_extrusion
aim1020 Uniform_Surface with surface_form = surf_of_revolution
aim1021 Uniform_Surface with surface_form = toroidal_surf
aim1022 Uniform_Surface with surface_form = unspecified
aim1023 Uniform_Surface with u_closed = TRUE
aim1024 Uniform_Surface with u_closed = FALSE
aim1025 Uniform_Surface with u_closed = UNKNOWN
aim1026 Uniform_Surface with v_closed = TRUE
aim1027 Uniform_Surface with v_closed = FALSE
aim1028 Uniform_Surface with v_closed = UNKNOWN
aim1029 Uniform_Surface with self_intersect = TRUE
aim1030 Uniform_Surface with self_intersect = FALSE
aim1031 Uniform_Surface with self_intersect = UNKNOWN

ccxxix. Vector

aim1032 Vector (6.10)

ccxxx. Versioned_Action_Request

aim1033 Versioned_Action_Request (6.1, 6.2, 6.3, 6.4, 6.23, 6.24)

ccxxxi. Vertex_Loop

aim1035 Vertex_Loop

ccxxxii. Vertex_Point

aim1036 Vertex_Point (6.10, 6.11, 6.12)

ccxxxiii. Vertex_Shell

aim1037 Vertex_Shell

ccxxxiv. Week_Of_Year_And_Day_Date

aim1038 Week_Of_Year_And_Day_Date
aim1039 Week_Of_Year_And_Day_Date with day_component
aim1040 Week_Of_Year_And_Day_Date with day_component not present

ccxxxv. Wire_Shell

aim1041 Wire_Shell
aim1042 Wire_Shell with wire_shell_extent of one element
aim1043 Wire_Shell with wire_shell_extent of many elements

ccxxxvi. Work_Order_Relationship

aim1045 Work_Order_Relationship (6.24)

c. Domain test purposes

No domain test purposes were identified at pilot implementation.

5 General test purposes and verdict criteria

General test purposes are statements of requirements that apply to all abstract test cases, all preprocessor abstract test cases, or all postprocessor abstract test cases. General verdict criteria are the means for evaluating whether the general test purposes are met. General verdict criteria shall be evaluated as a part of every executable test case to which they apply. Each general verdict criterion includes a reference to its associated test purpose.

a. General test purposes

The following are the general test purposes for this part of ISO 10303:

g1 The output of an IUT shall preserve all the semantics defined by the input model according to the reference paths specified in the mapping table defined in clause 5 of ISO 10303-207.
g2 The output of a preprocessor shall conform to the implementation method to which the IUT claims conformance.
g3 The instances in the output of a preprocessor shall be encoded according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-207.
g4 A postprocessor shall accept input data which is encoded according the implementation method to which the IUT claims conformance.
g5 A postprocessor shall accept input data structured according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-207.

b. General verdict criterion for all abstract test cases

The following verdict criterion applies to all abstract test cases in this part of ISO 10303:

gvc1 The semantics of the input model are preserved in the output of the IUT according to the reference paths specified in the mapping table defined in clause 5 of ISO 10303-207 (g1).

c. General verdict criterion for preprocessor abstract test cases

The following verdict criterion applies to all preprocessor abstract test cases contained in this part of ISO 10303:

gvc2 The output of a preprocessor conforms to the implementation method to which the IUT claims conformance (g2).
gvc3 The instances in the output of a preprocessor are encoded according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-207 (g3).

d. General verdict criterion for postprocessor abstract test cases

The following verdict criterion applies to all postprocessor abstract test cases contained in this part of ISO 10303:

gvc4 The postprocessor accepts input data which is encoded according to the implementation method to which the IUT claims conformance (g4, other2-other6).
gvc5 The postprocessor accepts input data which is structured according to the AIM EXPRESS long form and mapping table as defined in Annex A and clause 5 of ISO 10303-207 (g5, other7-other11).

6 Abstract test cases

This clause specifies the abstract test cases for this part of ISO 10303. Each abstract test case addresses one or more test purposes from clause 4. All the test purposes addressed by the test case are referenced either explicitly, in the test purposes covered sections, or indirectly, through the verdicted rows of the preprocessor input specification table.

The abstract test cases are organized by conformance class number starting with class 1 test cases. The title for a class 1 test case indicates a significant feature of the AP that is intended to be tested by it. Test case names for other CCs are intended to provide a simple description of the shape that is part of the test case. All abstract test case names are unique within this part of ISO 10303.

Each abstract test case has a subclause for the preprocessor test information and a subclause for each postprocessor input specification and related test information. The preprocessor and postprocessor input specifications are mirror images of each other, i.e., they represent the same semantic information. The preprocessor input model is presented in the form of a table with five columns:

— The Id column is used to reference application objects for assertions and categorisations. It uses the same identifier as the test purpose associated with the application element in that row of the table.

— The V column specifies whether, or not, the element in that row of the table is verdicted in this test case. A blank indicates it is not verdicted. A '*' indicates that it is verdicted using a derived verdict criteria. A number references a specific verdict criteria defined in the verdict criteria section that follows the preprocessor input specification table.

— The Application Elements column identifies the particular application element or categorisation instance that is being defined by the table. For assertions the role is specified in parenthesis.

— The Value column specifies a specific value for the application element. For application objects and attributes the value column defines the semantic value for that element's instance in the input model. A #<number> in the column is a reference to an entity instance name in the postprocessor input specification where the corresponding value is specified. For assertions, this column holds a link to the related application object. For categorisations, the Value column identifies the subtype application object. A "<not_present>" indicates that the application element or categorisation is not present in the input model.

— The Req column specifies whether the value in the Value column is mandatory (M), suggested (S) or constrained (C<number>, where <number> is an integer). A suggested value may be changed by a test realiser. A mandatory value may not be changed due to rules in EXPRESS, rules in the mapping table, or the requirements of the test purpose being verdicted. Each constrained value references a note labelled C<number> at the end of the preprocessor input model table and may be modified according to specific constraints specified in it.

The postprocessor input specifications are defined using ISO 10303-21. The values in the postprocessor specifications are suggested unless declared mandatory or constrained by the preprocessor input table.

The abstract test case specifies all the verdict criteria which are used to assign a verdict during testing. Special verdict criteria for preprocessor and postprocessor testing are defined explicitly in each abstract test case subclause. The relevant derived verdict criteria for preprocessor and postprocessor testing are identified in the V column of the preprocessor input table.

a. Test Case 120

Test case summary:

Test case 120 is designed to test the ability to define a Work_request which is of type Start_request.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 1 - Application elements for case 120

ID	V	Application Element	Value	Req
@3714	*	Start_request	#1	M
@3715	*	Start_request.request_description	#1,'$Feasibility Study and line-up'	S
@3716	*	Start_request.request_justification	#1,'start'	S
@4281	*	Work_request	#1	M
@4282	*	Work_request.date_and_time_of_request	#2,#2	S
@4283	*	Work_request.requestor	#5,#5	S
@4284	*	Work_request.work_request_identification	#1	S
@4285		Work_request to Work_order (<role description>)	<not_present>	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column

2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim1033, aim818, aim819, aim827, aim311, aim850, aim851, aim 857, aim541, aim542, aim544, aim557, aim224

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

b. Test Case 130

Test case summary:

Test case 130 is designed to test the ability to define a Work_request which is of type Change_request.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 2 - Application elements for case 130

Id	V	Application Element	Value	Req
@175	*	Change_request	#1	M
@176	*	Change_request.problem_change_description	#1,'Design to split and pierce part with operational line-up change'	S
@177	*	Change_request.recommended_solution	#2,#2	S
@4281		Work_request	#1	M
@4282		Work_request.date_and_time_of_request	#3,#3	S
@4283		Work_request.requestor	#6,#6	S
@4284		Work_request.work_request_identification	#1	S
@4285		Work_request to Work_order (<role description>)	<not_present>	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim1033, aim7, aim8, aim818, aim819, aim827, aim311, aim850, aim851, aim 857, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim224, aim348, aim349

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

c. Test case 140

Test case summary:

Test case 140 is designed to test the ability to define a Work_request which is of type Start_request, a Work_order of type Start_order with target implementation type as Internal_order, generated from the Work_request.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 3 - Application elements for case 140

Id	V	Application Element	Value	Req
@3658	*	Start_order	#1	S
@3659	*	External_order to Start_order (<inverse role>)	<not_present>	M
@3662	*	Work_item to Start_order (<inverse role>)	<not_present>	M
@4097	*	Work_order	#1,#1	M
@4098	*	Work_order.applicable_standard	#3,#3	M
@4099	*	Work_order.approval	#57,#57	M
@4100	*	Work_order.completion_date_and_time	#15,#15	M
@4101	*	Work_order.order_date_and_time	#19,#19	M
@4102	*	Work_order.preliminary_review_date_and_-time	#23,#23	M
@4103	*	Work_order.priority	#1,'Feasibility study and line-up'	S
@4104	*	Work_order.production_volume	#28,#28	S
@4105	*	Work_order.start_date_and_time	#30,#30	S
@4106	*	Work_order.work_description	#2,'Feasibility Study and line-up'	S
@4107	*	Work_order.work_order_number	#1,'WO678'	S

Id	V	Application Element	Value	Req
@4109		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4112		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4115		Work_order_responsibility to Work_order (<inverse role>)	<not_present>	M
@4118	*	Work_request to Work_order (Results from)	@4281	M
@1313	*	Internal_order	#37	M
@1314	*	Internal_order.authorized_hours	#44,'Charge 250 hours to 2004.290	M
@1315	*	Internal_order.charge_number	#44,'Charge 250 hours to 2004.290	M

Table 3 - Application elements for case 140 (concluded)

Id	V	Application Element	Value	Req
@1316	*	Internal_order.source_department	#38,'AVD Company	M
@3714		Start_request	#36	M
@3715		Start_request.request_description	#36,'Feasibility Study and line-up'	S
@3716		Start_request.request_justification	#36,'start'	S
@4281		Work_request	#36	M
@4282		Work_request.date_and_time_of_request	#51,#51	S
@4283		Work_request.requestor	#54,#54	S
@4284		Work_request.work_request_identification	#36	S
@4285	*	Work_request to Work_order (<Results in >)	@4097	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim930, aim7, aim8, aim828, aim829, aim832, aim348, aim349, aim369, aim49, aim59, aim50, aim51, aim224, aim54, aim56, aim58, aim541, aim543, aim545, aim548, aim551, aim554, aim818, aim819, aim821, aim463, aim464, aim472, aim18, aim19, aim22, aim33, aim1033, aim836, aim837, aim841, aim500, aim501, aim503, aim2, aim3, aim345, aim341, aim286, aim850, aim851, aim857, aim557, aim793, aim794, aim796, aim727, aim728, aim730, aim15, aim10, aim12

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

d. Test case 150

Test case summary:

Test case 150 is designed to test the ability to define a Work_request which is of type Change_request, a Work_order of type Change_order with target implementation type as External_order, generated from the Work_request.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 4 - Application elements for case 150

Id	V	Application Element	Value	Req
@2780	*	Position_orientation_representation	#34	S
@117	*	Change_order	#1	M
@118	*	Change_order.change_design_location	#1,'Change operational line-up; design to split and pierce part'	S
@119	*	Change_order.implementor	#4,#4	S
@120		Change_order to Work_item (<role description>)	<not_present>	M
@123		Change_order to Work_item (<role description>)	<not_present>	M

Table 4 - Application elements for case 150 (continued)

Id	V	Application Element	Value	Req
@978	*	External_order	#49	M
@979	*	External_order.contractual_requirement	#50,'Meet Requirement #42'	S
@980	*	External_order.purchase_order_number	#50,'Contract5398'	S
@981	*	External_order.purchasing_agent	#54,#54	S
@982	*	External_order.supplier_identification	#57,#57	S
@983		External_order to Start_order (<role description>)	<not_present>	M
@4097		Work_order	#1,#1	M
@4098		Work_order.applicable_standard	#8,#8	M
@4099		Work_order.approval	#69,#69	M
@4100		Work_order.completion_date_and_time	#20,#20	M
@4101		Work_order.order_date_and_time	#25,#25	M
@4102		Work_order.preliminary_review_date_date_-and_time	#28,#28	M
@4103		Work_order.priority	#1,'Change operational line-up; design to split and pierce part'	S
@4104		Work_order.production_volume	#38,#38	S
@4105		Work_order.start_date_and_time	#41,#41	S
@4106		Work_order.work_description	#2,'Change operational line-up; design to split and pierce part'	S

Table 4 - Application elements for case 150 (continued)

Id	V	Application Element	Value	Req
@4107		Work_order.work_order_number	#1,'56319843'	S
@4109		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4112		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4115	*	Work_order_responsibility to Work_order (is carried out by)	@4227	M
@4118		Work_request to Work_order (<inverse role>)	<not_present>	M
@4227	*	Work_order_responsibility	#47	M
@4228	*	Work_order_responsibility.role	#48,#48	S

Table 4 - Application elements for case 150 (concluded)

Id	V	Application Element	Value	Req
@4229	*	Work_order_responsibility to Work_order (is responsible for)	@4097	M
@4281		Work_request	#7	M
@4282		Work_request.date_and_time_of_request	#63,#63	S
@4283		Work_request.requestor	#66,#66	S
@4284		Work_request.work_request_identification	#7,'3R28'	S
@4285		Work_request to Work_order (<role description>)	<not_present>	M
@175		Change_request	#7	M
@176		Change_request.probelm_change_description	#7,'Change operational line-up; design to split and pierce part	M
@177		Change_request.recommended_solution	#2,#2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim244, aim7, aim8, aim836, aim837, aim839, aim500, aim501, aim503, aim1033, aim828, aim832, aim829, aim348, aim349, aim369, aim49, aim59, aim50 aim51, aim224, aim54, aim56, aim58, aim818, aim819, aim821, aim311, aim10, aim11, aim727, aim728, aim731, aim730, aim463, aim464, aim472, aim341, aim18, aim19, aim22, aim33, aim801, aim802, aim805, aim287, aim288, aim850, aim851, aim854, aim541, aim542, aim543, aim544, aim545, aim548, aim551, aim554, aim557, aim345, aim2, aim15

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

e. Test case 160

Test case summary:

Test case 160 is designed to test the ability to define an Item of type Part, its Item_version with production type Made_in_house, Item_defintion which is of type Designed_item and Part_definition whose life cycle stage is Final_part_definition.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 5 - Application elements for case 160

Id	V	Application Elements	Value	Req
@1419	*	Item	#5	M
@1420	*	Item.item_description	#5,'Gutter-Component Lid Side Right & Left'	S
@1421	*	Item.item_name	#5,'Gutter-Component Lid Side Right & Left'	S
@1422	*	Item.item_number	#5,'88776655'	S
@1425	*	Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M

Table 5 - Application elements for case 160 (continued)

Id	V	Application Elements	Value	Req
@1428	*	Item to Item_version (is versioned by)	@1724.1,@1724.2,@1724.3	M
@1478.1	*	Item_classification	#15	M
@1479	*	Item_classification.classification_description	#15,'Gutter-Component Lid Side Right & Left'	S
@1480	*	Item_classification.classification_identification	#15,'part'	S
@1481	*	Item_classification.classification_name	#15,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489	*	Item to Item_classification (classifies)	@1419	M
@1478.2		Item_classification	#18	M
@1479		Item_classification.classification_description	#18,'Gutter-Component Lid Side Right & Left'	S
@1480		Item_classification.classification_identification	#18,'part definition'	S
@1481		Item_classification.classification_name	#18,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.3		Item_classification	#19	M

Table 5 - Application elements for case 160 (continued)

Id	V	Application Elements	Value	Req
@1479		Item_classification.classification_description	#19,'Gutter-Component Lid Side Right & Left'	S
@1480		Item_classification.classification_identification	#19,'internal'	S
@1481		Item_classification.classification_name	#19,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@2202	*	Part	#5	S
@382	*	Designed_item	#11	M
@383	*	Designed_item.creation_date_and_time	#20,#20	S
@384	*	Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385	*	Designed_item.data_ownership	#24,#24	S
@386	*	Designed_item.designer	#29,#29	S
@387	*	Designed_item.generating_system_information	#31,'CAD System'	S
@388	*	Designed_item.media_requirements	#32,#32	S
@1204	*	Final_part_definition	#11	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2252	*	Part_definition	#11	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1724	*	Item_version	#13	M
@1725	*	Item_version.approval	#42,#42	M
@1726	*	Item_version.approval_status	#44,#44	M
@1727	*	Item_version.description	#4,'Gutter-Component Lid Side Right & Left'	S
@1728	*	Item_version.item_version_identification	#4,'5'	S

Table 5 - Application elements for case 160 (continued)

Id	V	Application Elements	Value	Req
@1729	*	Item_version.revision_date_and_time	#20,#20	S
@1731	*	Item_version to Item_definition (is defined by)	@1597	M
@1734	*	Item to Item_version (versions)	@1419	M
@1835	*	Made_in_house	#13	M
@1597	*	Item_definition	#11	M
@1598	*	Item_definition.approval	#33,#33	M

Table 5 - Application elements for case 160 (concluded)

Id	V	Application Element	Value	Req
@1599	*	Item_definition.approval_status	#35,#35	M
@1600	*	Item_definition.definition_description	#11,'Increase the width of Gutter	M
@1601	*	Item_definition.procurement_information	#36,#36	M
@1602	*	Item_definition.proprietary_security_usage_-information	#38,#38	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role de-scription>)	<not_present>	M
@1616	*	Item_definition to Item_version (<role descrip-tion>)	@1724	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim622, aim623, aim625, aim603, aim605, aim844, aim845, aim849, aim555, aim541, aim543, aim545, aim548, aim551, aim554, aim556, aim500, aim501, aim850, aim851, aim855, aim557, aim348, aim349, aim793, aim794, aim798, aim49, aim59, aim836, aim837, aim842, aim503, aim858, aim859, aim862, aim765, aim766, aim767, aim614, aim615

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

f. Test case 170

Test case summary:

Test case 170 is designed to test the ability to define an Item of type Die, its Item_version with production type Made_in_house, Item_defintion which is of type Designed_item and Die_definition.

i. Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 6 - Application elements for case 170

Id	V	Application Elements	Value	Req
@1419		Item	#1	M
@1420		Item.item_description	#1,'Draw Die'	S
@1421		Item.item_name	#1,'Double Draw Die Rt & Lt'	S
@1422		Item.item_number	#1,'9555884'	S
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M

Table 6 - Application elements for case 170 (continued)

Id	V	Application Elements	Value	Req
@1478.1		Item_classification	#5	M
@1479		Item_classification.classification_description	#5,'Draw die to make sheet metal parts'	S
@1480		Item_classification.classification_identification	#5,'Die'	S
@1481		Item_classification.classification_name	#5,'Die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.2		Item_classification	#26	M
@1479		Item_classification.classification_description	#26,'definition of draw die to make sheet metal part'	S
@1480		Item_classification.classification_identification	#26,'die definition'	S
@1481		Item_classification.classification_name	#26,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.3		Item_classification	#37	M
@1479		Item_classification.classification_description	#37,'The die is a designed die'	S
@1480		Item_classification.classification_identification	#37,'internal'	S
@1481		Item_classification.classification_name	#37,'internal'	S

Table 6 - Application elements for case 170 (continued)

Id	V	Application Elements	Value	Req
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@382.1		Designed_item	#10	M
@383		Designed_item.creation_date_and _time	#38,#38	S
@384		Designed_item.data_exchange_history	(#50,#50, #50,#50)	S
@385		Designed_item.data_ownership	#41,#41	S
@386		Designed_item.designer	#46,#46	S
@387		Designed_item.generating_system_information	#46,'Graphics System'	S
@388		Designed_item.media_requirement	#24,#24	S
@538	*	Die_definition	#22	M
@539	*	Die_definition.die_function_description	#22,'Double Draw Die'	S
@540	*	Die_definition.die_layout_specification_refer-ence	#27,#27S"	
@541	*	Die_definition.die_structure_specification_ref-erence	#30,#30S"	
@542	*	Die_definition.die_weight	#22,'Double Draw Die'	S
@543	*	Die_definition.pattern_casting_specification	#33,#33S"	
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role de-scription>)	<not_present>	M
@1724		Item_version	#6	M
@1725		Item_version.approval	#51,#51	S
@1726		Item_version.approval_status	#53,#53	S
@1727		Item_version.description	#6,'Double Draw Die'	S
@1728		Item_version.item_version_identification	#6,'1'	S
@1729		Item_version.revision_date_and_time	#38,#38	S
@1732		Item_version to Item_definition (is defined by)	@1597	M

Table 6 - Application elements for case 170 (continued)

Id	V	Application Elements	Value	Req
@1734		Item to Item_version (versions)	@1419	M
@488	*	Die	#1	M
@1835		Made_in_house	#6	M

Table 6 - Application elements for case 170 (concluded)

Id	V	Application Elements	Value	Req
@1597		Item_definition	#10	M
@1598		Item_definition.approval	#13,#13	M
@1599		Item_definition.approval_status	#15,#15	M
@1600		Item_definition.definition_description	#10,'Double Draw Die Rt & Lt'	M
@1601		Item_definition.procurement_information	#16,#16	M
@1602		Item_definition.proprietary_security_usage_-information	#19,#19	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role de-scription>)	<not_present>	M
@1616	*	Item_definition to Item_version (<role descrip-tion>)	@1724	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

ii. Postprocessor

Test purposes covered:

aim589, aim598, aim590, aim46, aim622, aim623, aim625, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim603, aim605, aim793, aim794, aim798, aim49, aim59, aim836, aim837, aim842, aim500, aim501, aim503, aim858, aim859, aim862, aim765, aim766, aim614, aim615, aim348, aim349, aim828, aim829, aim834, aim844, aim845, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim850, aim851, aim855, aim767

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.7 Test Case 180

Test case summary:

Test case 180 is designed to test the ability to define an Item of type Die, its Item_version with production type Purchased, Item_defintion which is of type External_item_reference and Die_definition.

6.7.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 7 - Application elements for case 180

Id	V	Application Element	Value	Req
@488		Die	#1	S
@1419		Item	#1	M
@1420		Item.item_description	#1,'Cutoff Rectangular blanks one at a time'	S
@1421		Item.item_name	#1,'Decoiler Shear'	S
@1422		Item.item_number	#1,'B37-2854'	S

Table 7 - Application elements for case 180 (continued)

Id	V	Application Elements	Value	Req
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1478.1		Item_classification	#5	M
@1479		Item_classification.classification_description	#5,'Dies to cutoff rectangular blanks'	S
@1480		Item_classification.classification_identification	#5,'die'	S
@1481		Item_classification.classification_name	#5,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.2		Item_classification	#30	M
@1479		Item_classification.classification_description	#30,''	S
@1480		Item_classification.classification_identification	#30,'die definition'	S
@1481		Item_classification.classification_name	#30,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 7 - Application elements for case 180 (continued)

Id	V	Application Elements	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.3		Item_classification	#32	M
@1479		Item_classification.classification_description	#32,''	S
@1480		Item_classification.classification_identification	#32,'external'	S
@1481		Item_classification.classification_name	#32,'external'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@538		Die_definition	#36	M
@539		Die_definition.die_function_description	#36,'Die Reference Manual'	S
@540		Die_definition.die_layout_specification_reference	#37,#37	S
@541		Die_definition.die_structure_specification_reference	#40,#40	S
@542		Die_definition.die_weight	#36,'Die to cutoff rectangular blanks one at time'	S
@543		Die_definition.pattern_casting_specification	#43,#43	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@925	*	External_item_reference	#26	M
@926	*	External_item_reference.manual_reference_-description	#26,#26	S
@927	*	External_item_reference.name	#1,'Decoiler Shear'	S
@928	*	External_item_reference.needed_modifications	#18,'Decoiler Shear'	S

Table 7 - Application elements for case 180 (continued)

Id	V	Application Elements	Value	Req
@1724.1		Item_version	#6	M
@1725		Item_version.approval	#23,#23	S
@1726		Item_version.approval_status	#25,#25	S
@1727		Item_version.description	#6,'Decoiler Shear'	S
@1728		Item_version.item_version_identification	#6,'2'	S
@1729		Item_version.revision_date_and_time	#7,#7	S
@1732		Item_version to Item_definition (is defined by)	<not_present>	M
@1734		Item to Item_version (versions)	@1419	M
@3034	*	Purchased	#6	M

Table 7 - Application elements for case 180 (concluded)

Id	V	Application Elements	Value	Req
@3035	*	Purchased.purchase_requirements	#11,#11	M
@1597		Item_definition	#18	M
@1598		Item_definition.approval	#46,#46	M
@1599		Item_definition.approval_status	#48,#48	M
@1600		Item_definition.definition_description	#18,'Decoiler Shear	M
@1601		Item_definition.procurement_information	#14,#14	M
@1602		Item_definition.proprietary_security_usage_-information	#33,#33	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role de-scription>)	<not_present>	M
@1616	*	Item_definition to Item_version (<role descrip-tion>)	@1724	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.7.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim623, aim625, aim818, aim819, aim825, aim224, aim311, aim603, aim604, aim801, aim802, aim806, aim287, aim288, aim836, aim837, aim842, aim500, aim501, aim503, aim599, aim600, aim614, aim615, aim616, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim858, aim862, aim859, aim765, aim766, aim828, aim829, aim834

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.8 Test case 190

Test case summary:

Test case 190 is designed to test the ability to define an Item of type Die, its Item_version with production type Purchased, Item_definition which is of type Designed_item, Die_definition, Shape_definition which is of type Die_shape_definition, its Representation_element which in this case is Wireframe_-representation.

6.8.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 8 - Application elements for case 190

Id	V	Application Element	Value	Req
@488		Die	#1	S
@1419		Item	#1	M
@1420		Item.item_description	#1,'Solid Cube'	S

Table 8 - Application elements for case 190 (continued)

Id	V	Application Element	Value	Req
@1421		Item.item_name	#1,'Cube A'	S
@1422		Item.item_number	#1,'12345'	S
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1478.1		Item_classification	#5	M
@1479		Item_classification.classification_description	#5,''	S
@1480		Item_classification.classification_identification	#5,'die'	S
@1481		Item_classification.classification_name	#5,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.2		Item_classification	#26	M
@1479		Item_classification.classification_description	#26,'die definition'	S
@1480		Item_classification.classification_identification	#26,'die definition'	S
@1481		Item_classification.classification_name	#26,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 8 - Application elements for case 190 (continued)

Id	V	Application Element	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.3		Item_classification	#37	M
@1479		Item_classification.classification_description	#37,''	S
@1480		Item_classification.classification_identification	#37,'internal'	S
@1481		Item_classification.classification_name	#37,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@382		Designed_item	#14	M
@383		Designed_item.creation_date_and_time	#38,#38	S
@384		Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385		Designed_item.data_ownership	#42,#42	S
@386		Designed_item.designer	#48,#48	S
@387		Designed_item.generating_system_information	#64,#64	S
@388		Designed_item.generating_system_information	#51,#51	S
@538		Die_definition	#22	M
@539		Die_definition.die_function_description	#14,'Design of a Cube'	S
@540		Die_definition.die_layout_specification_refer-ence	(#27,#27)	S
@541		Die_definition.die_structure_specification_ref-erence	(#30,#30)	S
@542		Die_definition.die_weight	#14,'Design of a Cube'	S
@543		Die_definition.pattern_casting_specification	(#33,#33)	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role de-scription>)	<not_present>	M

Table 8 - Application elements for case 190 (continued)

Id	V	Application Element	Value	Req
@1724		Item_version	#6	M
@1725		Item_version.approval	#52,#52	S
@1726		Item_version.approval_status	#54,#54	S
@1727		Item_version.description	#6,'Cube'	S
@1728		Item_version.item_version_identification	#6,'S-1'	S
@1729		Item_version.revision_date_and_time	#38,#38	S
@1732		Item_version to Item_definition (is defined by)	@1597M	
@1734		Item to Item_version (versions)	@1419	M
@2780.1		Position_orientation_representation	#60	S
@2780.2		Position_orientation_representation	#61	S
@3135	*	Representation_element	#9221	S
@3136	*	Representation_element to Shape_definition (represents)	@3244	M
@3979	*	Wireframe_representation	#9200	S
@3244	*	Shape_definition	#9220	M
@3245	*	Shape_definition.shape_description	#9220,'Shape of the cube'	S
@3246		Shape_definition to Shape_definition_-relationship (<role description>)	<not_present>	M
@3249		Shape_definition to Shape_definition_-relationship (<role description>)	<not_present>	M
@3252		Feature to Shape_definition (<inverse role>)	<not_present>	M
@3255	*	Item_definition to Shape_definition (<inverse role>)	@1597	M
@3258		Assembly_component_relationship to Shape_-definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3267	*	Representation_element to Shape_definition (is represented by)	@3135	M

Table 8 - Application elements for case 190 (continued)

Id	V	Application Element	Value	Req
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M
@3034		Purchased	#6	M
@3035		Purchased.purchase_requirement	#11,#11	S

Table 8 - Application elements for case 190 (concluded)

Id	V	Application Element	Value	Req
@653	*	Die_shape_definition	#9220	M
@1597		Item_definition	#14	M
@1598		Item_definition.approval	#55,#55	M
@1599		Item_definition.approval_status	#57,#57	M
@1600		Item_definition.definition_description	#14,'Design of cube A	M
@1601		Item_definition.procurement_information	#16,#16	M
@1602		Item_definition.proprietary_security_usage_-information	#19,#19	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (has shape characterized by)	@3244	M
@1616	*	Item_definition to Item_version (is defined by)	@1724	M

Figure 1 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

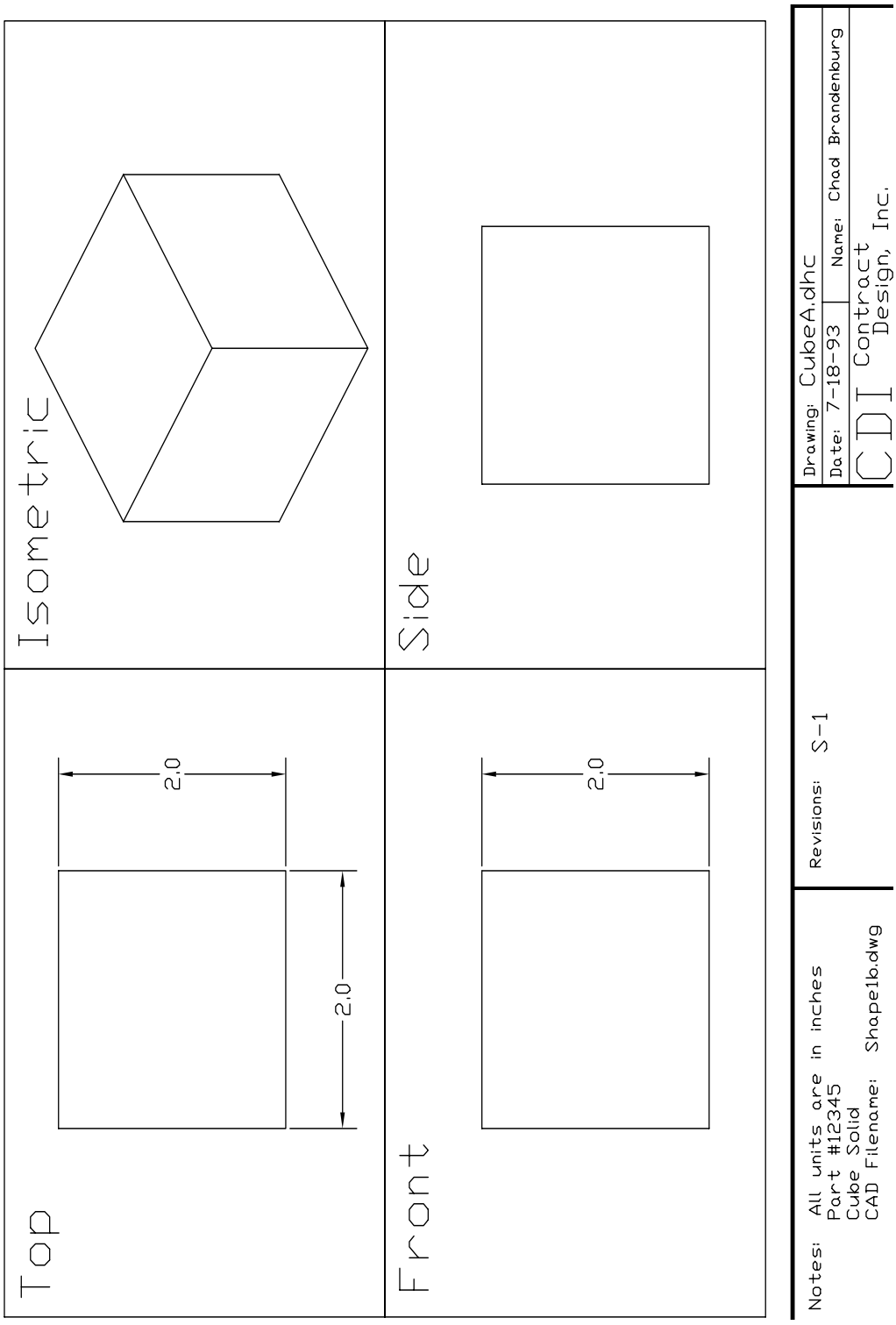

Figure 1 - Cube A

6.8.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim818, aim819, aim825, aim224, aim311, aim603, aim604, aim801, aim802, aim806, aim287, aim288, aim836, aim837, aim842, aim500, aim501, aim503, aim599, aim600, aim614, aim615, aim616, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim858, aim859, aim862, aim765, aim766, aim828, aim829, aim834, aim443, aim571, aim880, aim917, aim921, aim986, aim988, aim225, aim226, aim583, aim584, aim390, aim392, aim394, aim396, aim414, aim415, aim411, aim412, aim778, aim609, aim610, aim630, aim631, aim844, aim845, aim849, aim500, aim501, aim541, aim542, aim544, aim548, aim551, aim554, aim555, aim556, aim850, aim851, aim855, aim557,

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.9 Test case 200

Test case summary:

Test case 200 is designed to test the ability to define an Item of type Die, its Item_version with production type Purchased, Item_definition which is of type Designed_item, Die_definition, Shape_definition which is of type Die_shape_definition, its Representation_element which in this case is Surface_representation.

6.9.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 9 - Application elements for case 200

Id	V	Application Element	Value	Req
@488		Die	#1	S
@1419		Item	#1	M
@1420		Item.item_description	#1,'Solid Cone'	S
@1421		Item.item_name	#1,'Cone A'	S
@1422		Item.item_number	#1,'12345'	S
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1478.1		Item_classification	#5	M
@1479		Item_classification.classification_description	#5,''	S
@1480		Item_classification.classification_identification	#5,'die'	S
@1481		Item_classification.classification_name	#5,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1478.2		Item_classification	#7	M
@1479		Item_classification.classification_description	#7,''	S
@1480		Item_classification.classification_identification	#7,'die definition'	S
@1481		Item_classification.classification_name	#7,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 9 - Application elements for case 200 (continued)

Id	V	Application Element	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 9 - Application elements for case 200 (continued)

Id	V	Application Element	Value	Req
@1489		Item to Item_classification (classifies)	@1419	M
@1478.3		Item_classification	#8	M
@1479		Item_classification.classification_description	#8,''	S
@1480		Item_classification.classification_identification	#8,'internal'	S
@1481		Item_classification.classification_name	#8,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@382		Designed_item	#21	M
@383		Designed_item.creation_date_and_time	#42,#42	S
@384		Designed_item.data_exchange_history	(#45,#45, #45,#45)	S
@385		Designed_item.data_ownership	#47,#47	S
@386		Designed_item.designer	#52,#52	S
@387		Designed_item.generating_system_information	#63,#63	S
@388		Designed_item.media_requirements	#55,#55	S
@538.1		Die_definition	#29	M
@539		Die_definition.die_function_description	#29,'Cone used for positioning'	S
@540		Die_definition.die_layout_specification_refer-ence	(#32,#32, #38,#38, #39,#39)	S
@541		Die_definition.die_structure_specification_ref-erence	(#32,#32, #38,#38, #39,#39)	S
@542		Die_definition.die_weight	#29,'Cone used for positioning'	S
@543		Die_definition.pattern_casting_specification	(#32,#32, #38,#38, #39,#39)	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role de-scription>)	<not_present>	M
@1724		Item_version	#10	M
@1725		Item_version.approval	#60,#60	S

Table 9 - Application elements for case 200 (continued)

Id	V	Application Element	Value	Req
@1726		Item_version.approval_status	#62,#62	S
@1727		Item_version.description	#10,'Cone'	S
@1728		Item_version.item_version_identification	#10,'S-1'	S
@1729		Item_version.revision_date_and_time	#42,#42	S
@1732		Item_version to Item_definition (is defined by)	@1597	M
@1734		Item to Item_version (versions)	@1419	M
@3135		Representation_element	#9231	S
@3136		Representation_element to Shape_definition (represents)	@3244	M
@3766	*	Surface_representation	#9160	S
@3767	*	Surface_representation.surface_direction	#9160,#9160	S
@3768	*	Surface_representa-tion.surface_thickness	#9160,#9160	S
@3244		Shape_definition	#9180	M
@3245		Shape_definition.shape_description	#9160,'Shape of a Cone'	S
@3246		Shape_definition to Shape_definition_-relationship (<role description>)	<not_present>	M
@3249		Shape_definition to Shape_definition_-relationship (<role description>)	<not_present>	M
@3252		Feature to Shape_definition (<inverse role>)	<not_present>	M
@3255		Item_definition to Shape_definition (<inverse role>)	@1597	M
@3258		Assembly_component_relationship to Shape_-definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_defini-tion (<inverse role>)	<not_present>	M
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M

Table 8 - Application elements for case 190 (concluded)

Id	V	Application Element	Value	Req
@3267		Representation_element to Shape_definition (<inverse role>)	<not_present>	M

Table 8 - Application elements for case 190 (concluded)

Id	V	Application Element	Value	Req
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M
@3034		Purchased	#10	M
@3035		Purchased.purchase_requirements	#15,#15	M
@653		Die_shape_definition	#9180	M
@1597		Item_definition	#21	M
@1598		Item_definition.approval	#18,#18	M
@1599		Item_definition.approval_status	#20,#20	M
@1600		Item_definition.definition_description	#21,'Cone A	M
@1601		Item_definition.procurement_information	#23,#23	M
@1602		Item_definition.proprietary_security_usage_-information	#26,#26	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (has shape characterized by)	@3244	M
@1616	*	Item_definition to Item_version (is defined by)	@1724	M

Figure 2 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not form a part of the shape intended for instantiation. All linear dimensions are in mm.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by IUT generally corresponds in shape to the model represented in figure 2
VC2: This model contains a circle or circular arc of radius 0.81
VC3: The largest linear (not angular) dimension associated with this model is 2.344
VC4: Assuming this model is a solid, it has 2 distinct faces
VC5: The smallest angular dimension associated with this model is 40.0 degrees

6.9.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim818, aim819, aim825, aim224, aim311, aim603, aim604, aim801, aim802, aim806, aim287, aim288, aim836, aim837, aim842, aim500, aim501 , aim503, aim599, aim600, aim614, aim616, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim858, aim862, aim859, aim765, aim766, aim828, aim829, aim834, aim767, aim844, aim845, aim849, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim850, aim851, aim855, aim557, aim341, aim443, aim880, aim892, aim921, aim917, aim433, aim439, aim571, aim561, aim568, aim289, aim986, aim225, aim226, aim346, aim70, aim71, aim279, aim560, aim302, aim303, aim306, aim527, aim528, aim532, aim263, aim215, aim266, aim268, aim245, aim247, aim972, aim973, aim975, aim977, aim979, aim981, aim398, aim400, aim403, aim396, aim414, aim408, aim409, aim778, aim609, aim610, aim630, aim632, aim316, aim317, aim338, aim339, aim779, aim781, aim463, aim342

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

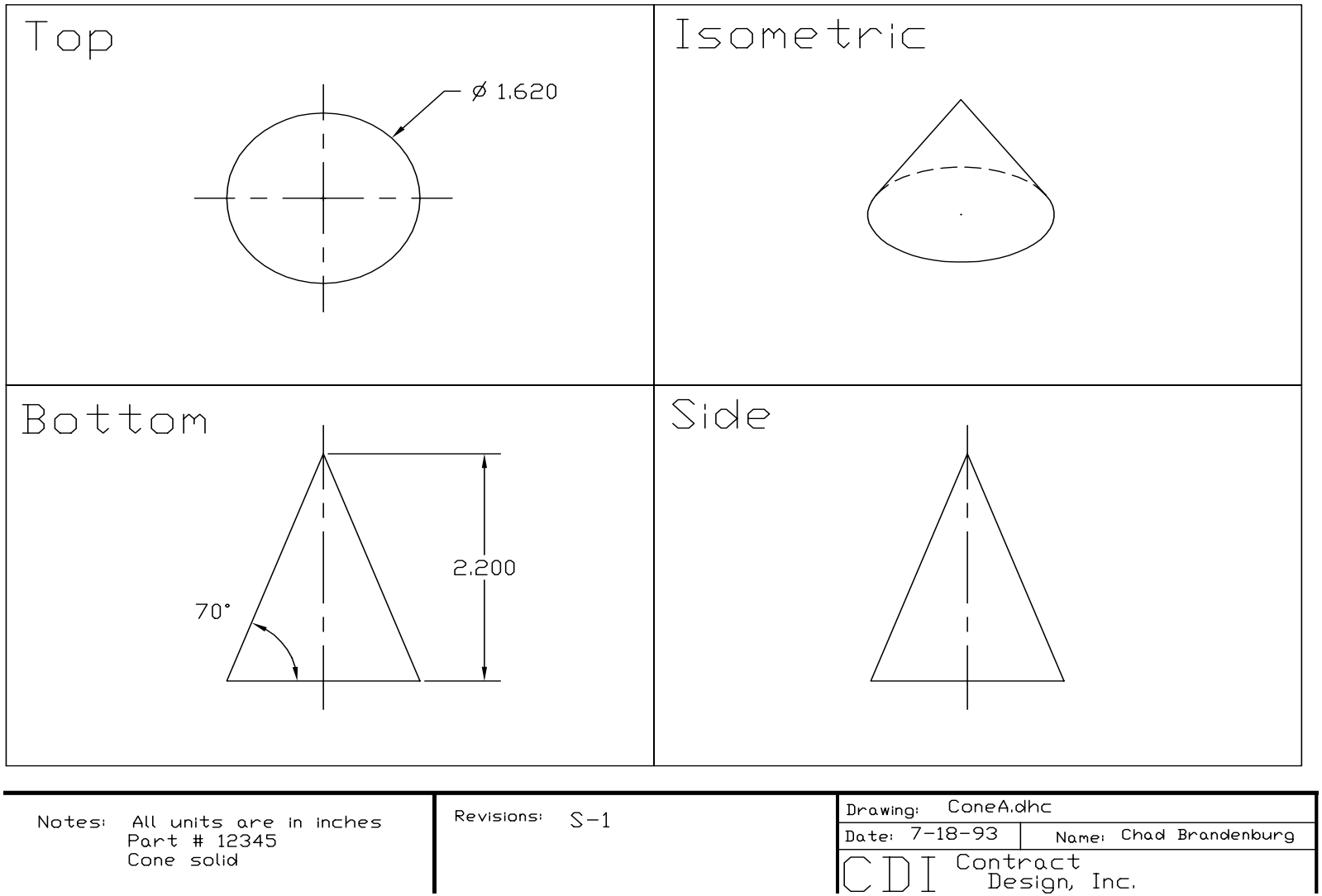

Figure 2 - Cone A (single)

6.10 Test case 210

Test case summary:

Test case 210 is designed to test the ability to define an Item of type Part, its Item_version with production type Made_in_house, Item_definition which is of type Designed_item, Part_definition whose life cycle stage is Final_part_definition, Shape_definition which is of type Part_shape_definition, its Representation_element which in this case is Surface_representation.

6.10.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 10 - Application elements for case 210

Id	V	Application Element	Value	Req
@1035		Feature	#9506	M
@1037		Feature.feature_name	#9506,'Widget'	S
@1038		Feature to Feature_property (<role description>)	<not_present>	M
@1042		Feature to Shape_definition (<role description>)	@3244.2	M
@1044		Item_definition to Feature (<inverse role>)	<not_present>	M
@1419		Item	#5	M
@1420		Item.item_description	#5,'Block with channel'	S
@1421		Item.item_name	#5,'WidgetA'	S
@1422		Item.item_number	#5,'11116'	S

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@1425		Item to Item_classification (<role description>)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (<role description>)	@1724.1,@1724.2	M
@1478.1		Item_classification	#15	M
@1479		Item_classification.classification_description	#15,''	S
@1480		Item_classification.classification_identification	#15,'part'	S
@1481		Item_classification.classification_name	#15,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.2		Item_classification	#18	M
@1479		Item_classification.classification_description	#18,''	S
@1480		Item_classification.classification_identification	#18,'part definition'	S
@1481		Item_classification.classification_name	#18,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.3		Item_classification	#19	M
@1479		Item_classification.classification_description	#19,''	S
@1480		Item_classification.classification_identification	#19,'internal'	S
@1481		Item_classification.classification_name	#19,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@2202		Part	#5	S
@382.1		Designed_item	#11	M
@383		Designed_item.creation_date_and_time	#20,#20	S
@384		Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385		Designed_item.data_ownership	#24,#24	S
@386		Designed_item.designer	#29,#29	S
@382.2		Designed_item	#45	M
@387		Designed_item.generating_system_information	#31,'SuperSystem'	S
@388		Designed_item.media_requirements	#32,#32	S
@925		External_item_reference	#45	M
@926		External_item_reference.manual_reference_-description	#45	S
@927		External_item_reference.name	#5,'WidgetA'	S
@92		External_item_reference.needed_modifications	#45,'generating system information'	S
@1204.1		Final_part_definition	#11	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1204.2		Final_part_definition	#45	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1366.1		In_process_part_definition	#11	S
@1367		In_process_part_definition to Process_-operation (<role description>)	<not_present>	M
@1366.2		In_process_part_definition	#45	S

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@2252.1		Part_definition	#11	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@2252.2		Part_definition	#45	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667		Item_definition_relationship	#41	M
@1668		Item_definition_relationship.relationship_description	#41,'none'	S
@1669		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1672		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1724.1		Item_version	#13	M
@1725		Item_version.approval	#42,#42	S
@1726		Item_version.approval_status	#44,#44	S
@1727		Item_version.description	#13,'Block with channel'	S
@1728		Item_version.item_version_identification	#13,'11116-1'	S
@1729		Item_version.revision_date_and_time	#20,#20	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@1724.2		Item_version	#16	M
@1727		Item_version.description	#16,'Organization TBL'	S
@1728		Item_version.item_version_identification	#16,'9854'	S
@1730		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@706	*	Dimensional_representation	#9510	S

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@707		Dimensional_representation to Dimension_-tolerance_range (<role description>)	<not_present>	M
@710		Dimensional_representation to Dimension_-tolerance_range (<role description>)	<not_present>	M
@825	*	Distance_dimension	#9507	S
@1785	*	Linear_distance_dimension	#9507,#9507	S
@2780.1	*	Position_orientation_representation	#9481	S
@2780.2	*	Position_orientation_representation	#9501	S
@2780.3	*	Position_orientation_representation	#9510	S
@3135.1	*	Representation_element	#9481	S
@3136		Representation_element to Shape_definition (<role description>)	<not_present>	M
@3135.2		Representation_element	#9501	S
@3137		Representation_element to Shape_definition (<role description>)	@3244.1	M
@3135.3		Representation_element	#9510	S
@3136		Representation_element to Shape_definition (<role description>)	<not_present>	M
@3766		Surface_representation	#9481,#9481	S
@3244.1		Shape_definition	#9500,#9500	M
@3245		Shape_definition.shape_description	#9500,'Shape of Block with Channel'	S
@3247		Shape_definition to Shape_definition_-relationship (<role description>)	@3322	M
@3250		Shape_definition to Shape_definition_-relationship (<role description>)	@3322	M
@3252		Feature to Shape_definition (<inverse role>)	<not_present>	M

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@3255		Item_definition to Shape_definition (<inverse role>)	<not_present>	M
@3258		Assembly_component_relationship to Shape_-definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3268		Representation_element to Shape_definition (<inverse role>)	@3135.2	M
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M
@3244.2		Shape_definition	#9506,#9506	M
@3245		Shape_definition.shape_description	#9506,'Shape of widget'	S
@3247		Shape_definition to Shape_definition_-relationship (<role description>)	@3322	M
@3250		Shape_definition to Shape_definition_-relationship (<role description>)	@3322	M
@3253		Feature to Shape_definition (<inverse role>)	@1035	M
@3255		Item_definition to Shape_definition (<inverse role>)	<not_present>	M
@3258		Assembly_component_relationship to Shape_-definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3267		Representation_element to Shape_definition (<inverse role>)	<not_present>	M
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M
@3322		Shape_definition_relationship	#9507	M

Table 10 - Application elements for case 210 (continued)

Id	V	Application Element	Value	Req
@3323		Shape_definition_relationship.relationship_description	#9507,'Location'	S
@3326		Shape_definition to Shape_definition_relationship (<inverse role>)	@3244.1,@3244.1,@3244.2,@3244.2	M
@3329		Shape_definition to Shape_definition_relationship (<inverse role>)	@3244.1,@3244.1,@3244.2,@3244.2	M
@227		Coincidence_defaults	#9471	M

Table 10 - Application elements for case 210 (concluded)

Id	V	Application Element	Value	Req
@228		Coincidence_defaults.position	#9043,#9043	S
@230		Coincidence_defaults to Shape_definition (<role description>)	<not_present>	M

Figure 3 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not forma part of the shape intended for instantiation. All linear dimensions are in mm.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 3.
VC2: The part represented by the model can be built from a standard metal stock of square cross-section with side: 200mm
VC3: This model have 8 distinct faces.
VC4: The area of the largest face in this model is 400.0 sq mm

6.10.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim622, aim624, aim625, aim603, aim605, aim844, aim845, aim849, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim500, aim501, aim850, aim851, aim855, aim557, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim836, aim837, aim842, aim503, aim858, aim859, aim862, aim765, aim766, aim767, aim614, aim615, aim443, aim880, aim892, aim917, aim921, aim986, aim988, aim346, aim225, aim226, aim1036, aim1032, aim445, aim70, aim71, aim560, aim357, aim358, aim509, aim510, aim360, aim362, aim377, aim378, aim37, aim38, aim40, aim496, aim498, aim863, aim865, aim867, aim396, aim414, aim416, aim456, aim457, aim609, aim610, aim630, aim632, aim316, aim317, aim778, aim779, aim338, aim339, aim463, aim342

The following general test purposes are covered: g1, g4 and g5.

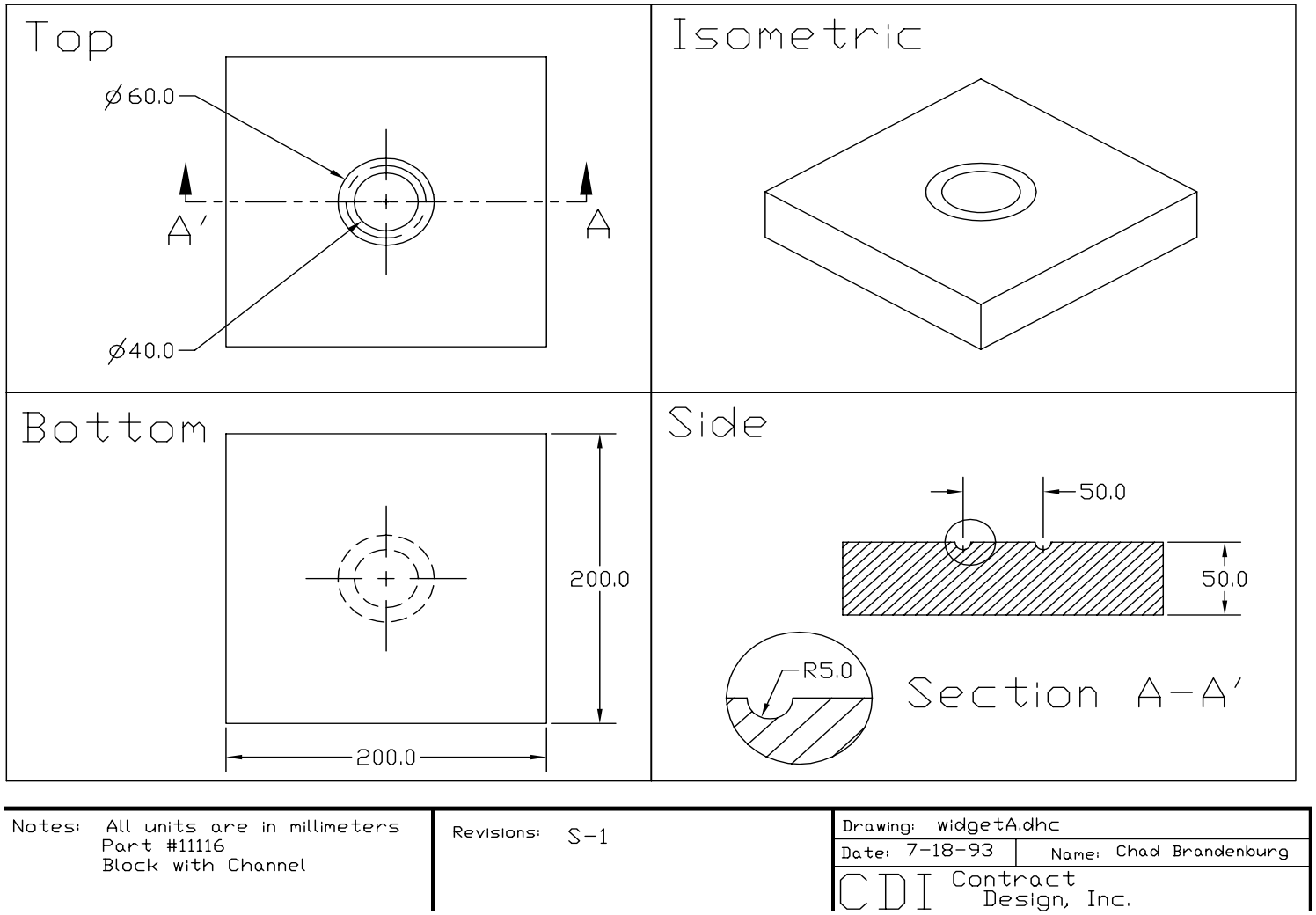

Figure 3 - Widget A (single)

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.11 Test case 220

Test case summary:

Test case 220 is designed to test the ability to define an Item of type Part, its Item_version with production type Made_in_house, Item_definition which is of type Designed_item, Part_definition whose life cycle stage is Final_part_definition, Shape_definition which is of type Part_shape_definition, its Representation_element which in this case is Solid_representation.

6.11.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 11 - Application elements for case 220

Id	V	Application Elements	Value	Req
@1419		Item	#5	M
@1420		Item.item_description	#5,'Flat Ring Gasket'	S
@1421		Item.item_name	#5,'Flat Ring Gasket'	S

Table 11 - Application elements for case 220 (continued)

Id	V	Application Elements	Value	Req
@1422		Item.item_number	#5,'11116'	S
@1425		Item to Item_classification (<role description>)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (<role description>)	@1724.1,@1724.2,@1724.3	M
@1478.1		Item_classification	#15	M
@1479		Item_classification.classification_description	#15,''	S
@1480		Item_classification.classification_identification	#15,'part'	S
@1481		Item_classification.classification_name	#15,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.2		Item_classification	#18	M
@1479		Item_classification.classification_description	#18,''	S
@1480		Item_classification.classification_identification	#18,'part definition'	S
@1481		Item_classification.classification_name	#18,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.3		Item_classification	#19	M
@1479		Item_classification.classification_description	#19,''	S
@1480		Item_classification.classification_identification	#19,'internal'	S
@1481		Item_classification.classification_name	#19,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 11 - Application elements for case 220 (continued)

Id	V	Application Elements	Value	Req
@1489		Item to Item_classification (<inverse role>)	@1419	M
@2202		Part	#5	S
@382.1		Designed_item	#11	M
@383		Designed_item.creation_date_and_time	#20,#20	S
@384		Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385		Designed_item.data_ownership	#24,#24	S
@386		Designed_item.designer	#29,#29	S
@382.2		Designed_item	#45	M
@387		Designed_item.generating_system_information	#31,'SuperSystem'	S
@388		Designed_item.media_requirements	#32,#32	S
@925		External_item_reference	#45	M
@926		External_item_reference.manual_reference_-description	#45	S
@927		External_item_reference.name	#5,'Flat Ring Gasket'	S
@92		External_item_reference.needed_modifications	#45,'generating system information'	S
@1204.1		Final_part_definition	#11	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1204.2		Final_part_definition	#45	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1366.1		In_process_part_definition	#11	S
@1367		In_process_part_definition to Process_-operation (<role description>)	<not_present>	M

Table 11 - Application elements for case 220 (continued)

Id	V	Application Elements	Value	Req
@1366.2		In_process_part_definition	#45	S
@1367		In_process_part_definition to Process_-operation (<role description>)	<not_present>	M
@2252.1		Part_definition	#11	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@2252.2		Part_definition	#45	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667		Item_definition_relationship	#41	M
@1668		Item_definition_relation-ship.relationship_de-scription	#41,'none'	S
@1669		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1672		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1724.1		Item_version	#4	M
@1727		Item_version.description	#4,'Flat Ring Gasket'	S
@1728		Item_version.item_version_identification	#4,'S-1'	S
@1729		Item_version.revision_date_and_time	#20,#20	S
@1731		Item_version to Item_definition (<role descrip-tion>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@1724.2		Item_version	#13	M
@1725		Item_version.approval	#42,#42	S
@1726		Item_version.approval_status	#44,#44	S
@1727		Item_version.description	#13,'Flat Ring Gasket'	S
@1728		Item_version.item_version_identification	#13,'11116-1'	S

Table 11 - Application elements for case 220 (continued)

Id	V	Application Elements	Value	Req
@1731		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@1724.3		Item_version	#16	M
@1727		Item_version.description	#16,'Organization TBL'	S
@1728		Item_version.item_version_identification	#16,'9854'	S
@1730		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@2780		Position_orientation_representation	#9240	S
@3135		Representation_element	#9240	S
@3136		Representation_element to Shape_definition (<role description>)	<not_present>	M
@3549	*	Solid_representation	#9240,#9240	M
@3550	*	Solid_representation.B_rep	#9240	S
@3244		Shape_definition	#9260,#9260	M
@3245		Shape_definition.shape_description	#9260,'Shape of Flat Ring Gasket'	S
@3246		Shape_definition to Shape_definition_relationship (<role description>)	<not_present>	M
@3249		Shape_definition to Shape_definition_relationship (<role description>)	<not_present>	M
@3252		Feature to Shape_definition (<inverse role>)	<not_present>	M
@3255		Item_definition to Shape_definition (<inverse role>)	<not_present>	M
@3258		Assembly_component_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M

Table 11 - Application elements for case 220 (continued)

Id	V	Application Elements	Value	Req
@3267		Representation_element to Shape_definition (<inverse role>)	<not_present>	M
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M

Table 11 - Application elements for case 220 (concluded)

Id	V	Application Elements	Value	Req
@227		Coincidence_defaults	#9230	M
@228		Coincidence_defaults.position	#9043,#9043	S
@230		Coincidence_defaults to Shape_definition (<role description>)	<not_present>	M

Figure 4 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not forma part of the shape intended for instantiation. All linear dimensions are in mm.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

The following specific verdict criteria apply:

VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 4.
VC2: The radius of the central hole of the gasket is 25.0 mm
VC3: The thickness of the gasket is 5.0 mm
VC4: The outer diameter of the gasket is 60.0 mm

6.11.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim622,

aim624, aim625, aim603, aim605, aim844, aim845, aim849, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim500, aim501, aim850, aim851, aim855, aim557, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim836, aim837, aim842, aim503, aim858, aim859, aim862, aim765, aim766, aim767, aim614, aim615, aim443, aim880, aim892, aim986, aim988, aim346, aim225, aim226, aim70, aim71, aim560, aim245, aim247, aim1036, aim357, aim358, aim509, aim510, aim360, aim361, aim377, aim379, aim37, aim39, aim41, aim308, aim248, aim250, aim455, aim396, aim397, aim414, aim415, aim34, aim35, aim778, aim609, aim341, aim610

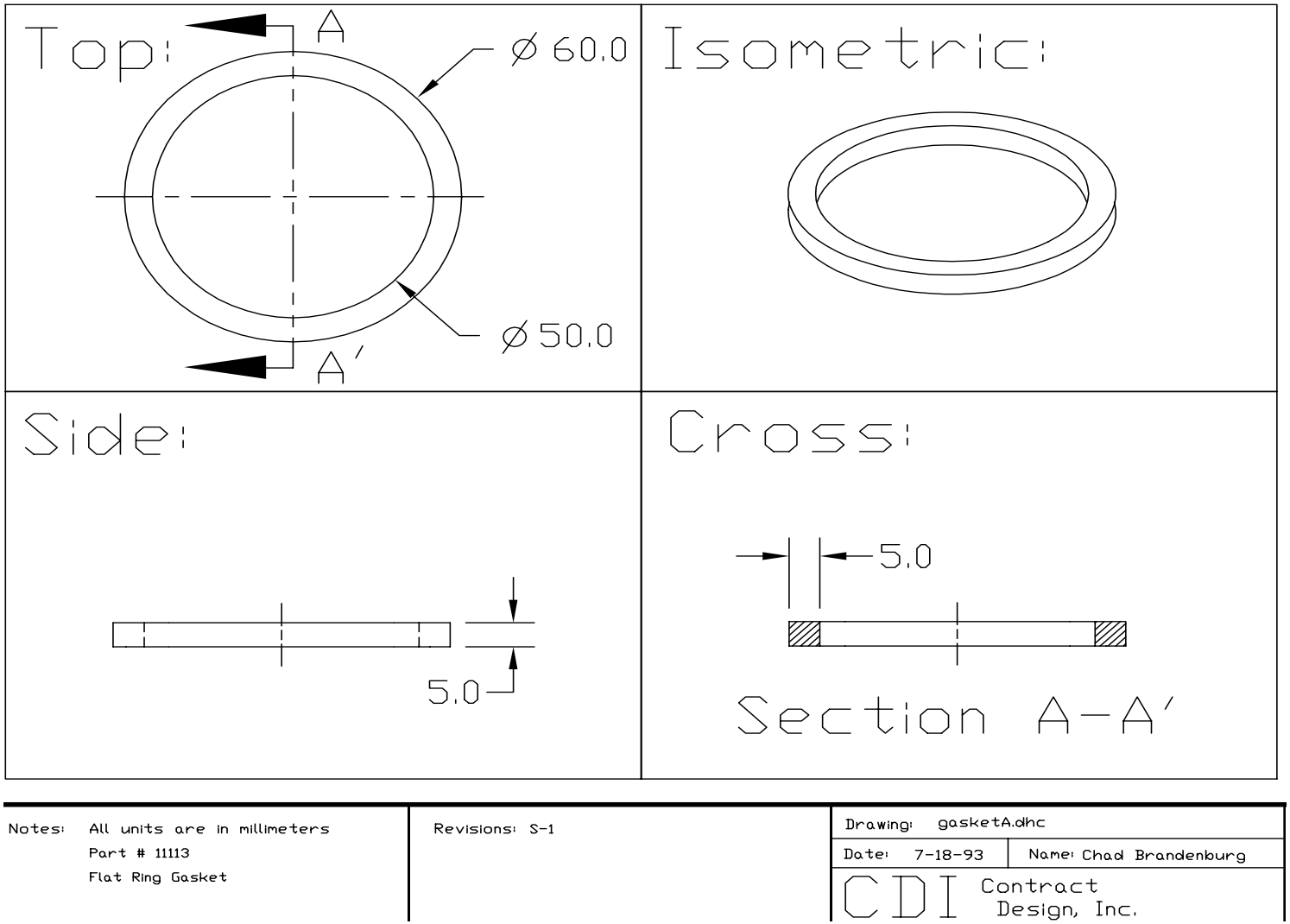

Figure 4 - Gasket A

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.12 Test case 230

Test case summary:

Test case 230 is designed to test the ability to define an Item of type Part, its Item_version with production type Made_in_house, Item_definition which is of type Designed_item, Part_definition whose life cycle stage is Final_part_definition, Shape_definition which is of type Part_shape_definition, its Representation_element which in this case is Solid_representation.

6.12.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 12 - Application elements for case 230

Id	V	Application Element	Value	Req
@1419		Item	#5	M
@1420		Item.item_description	#5,'Ring Gasket-Flat with Holes'	S

Table 12 - Application elements for case 230 (continued)

Id	V	Application Element	Value	Req
@1421		Item.item_name	#5,'gasketB'	S
@1422		Item.item_number	#5,'12345'	S
@1425		Item to Item_classification (<role description>)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (<role description>)	@1724.1,@1724.2,@1724.3	M
@1478.1		Item_classification	#15	M
@1479		Item_classification.classification_description	#15,''	S
@1480		Item_classification.classification_identification	#15,'part'	S
@1481		Item_classification.classification_name	#15,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.2		Item_classification	#18	M
@1479		Item_classification.classification_description	#18,''	S
@1480		Item_classification.classification_identification	#18,'part definition'	S
@1481		Item_classification.classification_name	#18,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419	M
@1478.3		Item_classification	#19	M
@1479		Item_classification.classification_description	#19,''	S
@1480		Item_classification.classification_identification	#19,'internal'	S
@1481		Item_classification.classification_name	#19,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 12 - Application elements for case 230 (continued)

Id	V	Application Element	Value	Req
@1489		Item to Item_classification (<inverse role>)	@1419	M
@2202		Part	#5	S
@382.1		Designed_item	#11	M
@383		Designed_item.creation_date_and_time	#20,#20	S
@384		Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385		Designed_item.data_ownership	#24,#24	S
@386		Designed_item.designer	#29,#29	S
@382.2		Designed_item	#45	M
@387		Designed_item.generating_system_information	#31,'SuperSystem'	S
@388		Designed_item.media_requirements	#32,#32	S
@925		External_item_reference	#45	M
@926		External_item_reference.manual_reference_-description	#45	S
@927		External_item_reference.name	#5,'gasketB'	S
@92		External_item_reference.needed_modifications	#45,'generating system information'	S
@1204.1		Final_part_definition	#11	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1204.2		Final_part_definition	#45	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1366.1		In_process_part_definition	#11	S
@1367		In_process_part_definition to Process_-operation (<role description>)	<not_present>	M

Table 12 - Application elements for case 230 (continued)

Id	V	Application Element	Value	Req
@1366.2		In_process_part_definition	#45	S
@1367		In_process_part_definition to Process_operation (<role description>)	<not_present>	M
@2252.1		Part_definition	#11	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@2252.2		Part_definition	#45	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667		Item_definition_relationship	#41	M
@1668		Item_definition_relationship.relationship_description	#41,'none'	S
@1669		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1672		Item_definition to Item_definition_relationship (<inverse role>)	<not_present>	M
@1724.1		Item_version	#4	M
@1727		Item_version.description	#4,'Ring Gasket-Flat with Holes'	S
@1728		Item_version.item_version_identification	#4,'S-1'	S
@1729		Item_version.revision_date_and_time	#20,#20	S
@1731		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@1724.2		Item_version	#13	M
@1725		Item_version.approval	#42,#42	S
@1726		Item_version.approval_status	#44,#44	S
@1727		Item_version.description	#13,'Ring Gasket-Flat with Holes'	S
@1728		Item_version.item_version_identification	#13,'11113-1'	S

Table 12 - Application elements for case 230 (continued)

Id	V	Application Element	Value	Req
@1731		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@1724.3		Item_version	#16	M
@1727		Item_version.description	#16,'Kate & Company'	S
@1728		Item_version.item_version_identification	#16,'9004'	S
@1730		Item_version to Item_definition (<role description>)	<not_present>	M

Table 12 - Application elements for case 230 (concluded)

Id	V	Application Element	Value	Req
@1734		Item to Item_version (<inverse role>)	@1419	M
@2780		Position_orientation_representation	#9370	S
@3135		Representation_element	#9370	S
@3136		Representation_element to Shape_definition (<role description>)	<not_present>	M
@3549		Solid_representation	#9370,#9370	M
@3550		Solid_representation.B_rep	#9370	S
@3244		Shape_definition	#9390,#9390	M
@3245		Shape_definition.shape_description	#9390,'Shape of Flat Ring Gasket with Holes '	S
@3246		Shape_definition to Shape_definition_relationship (<role description>)	<not_present>	M
@3249		Shape_definition to Shape_definition_relationship (<role description>)	<not_present>	M
@3252		Feature to Shape_definition (<inverse role>)	<not_present>	M
@3255		Item_definition to Shape_definition (<inverse role>)	<not_present>	M
@3258		Assembly_component_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3261		Input_item_die_relationship to Shape_definition (<inverse role>)	<not_present>	M

Table 12 - Application elements for case 230 (concluded)

Id	V	Application Element	Value	Req
@3264		Mating_relationship to Shape_definition (<inverse role>)	<not_present>	M
@3267		Representation_element to Shape_definition (<inverse role>)	<not_present>	M
@3270		Coincidence_defaults to Shape_definition (<inverse role>)	<not_present>	M
@227		Coincidence_defaults	#9360	M
@228		Coincidence_defaults.position	#9043,#9043	S
@230		Coincidence_defaults to Shape_definition (<role description>)	<not_present>	M

Verdict criteria:

Figure 5 is a pictorial depiction, using common draughting conventions and terminology, of the shape represented in this test case. The non-geometric elements (annotations etc.) in the figure are present to aid understanding and do not forma part of the shape intended for instantiation. All linear dimensions are in mm.

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

The following specific verdict criteria apply:
VC1: The model realized by the IUT generally correspond in shape to the model represented in figure 5.
VC1: The radius of the central hole of the gasket is 50.0 mm
VC3: The thickness of the gasket is 5.0 mm
VC4: Excluding the central hole there are 4 holes present on the body
VC5: The 4 holes in the gasket have a conical profile
VC6: At their narrowest points, the diameter of the 4 holes in the gasket are 5.0mm id diameter VC7: The outer diameter of the gasket is 80.0 mm

6.12.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim622, aim624, aim625, aim603, aim605, aim844, aim845, aim849, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim500, aim501, aim850, aim851, aim855, aim557, aim348, aim349, aim793, aim794, aim799, aim49, aim59, aim836, aim837, aim842, aim503, aim858, aim859, aim862, aim765, aim766, aim767, aim614, aim615, aim986, aim988, aim225, aim226, aim346, aim70, aim71, aim560, aim245, aim247, aim1036, aim360, aim361, aim357, aim358, aim509, aim510, aim377, aim379, aim308, aim37, aim39, aim40, aim248, aim279, aim396, aim397, aim414, aim415, aim34, aim778, aim609, aim610, aim455, aim341

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

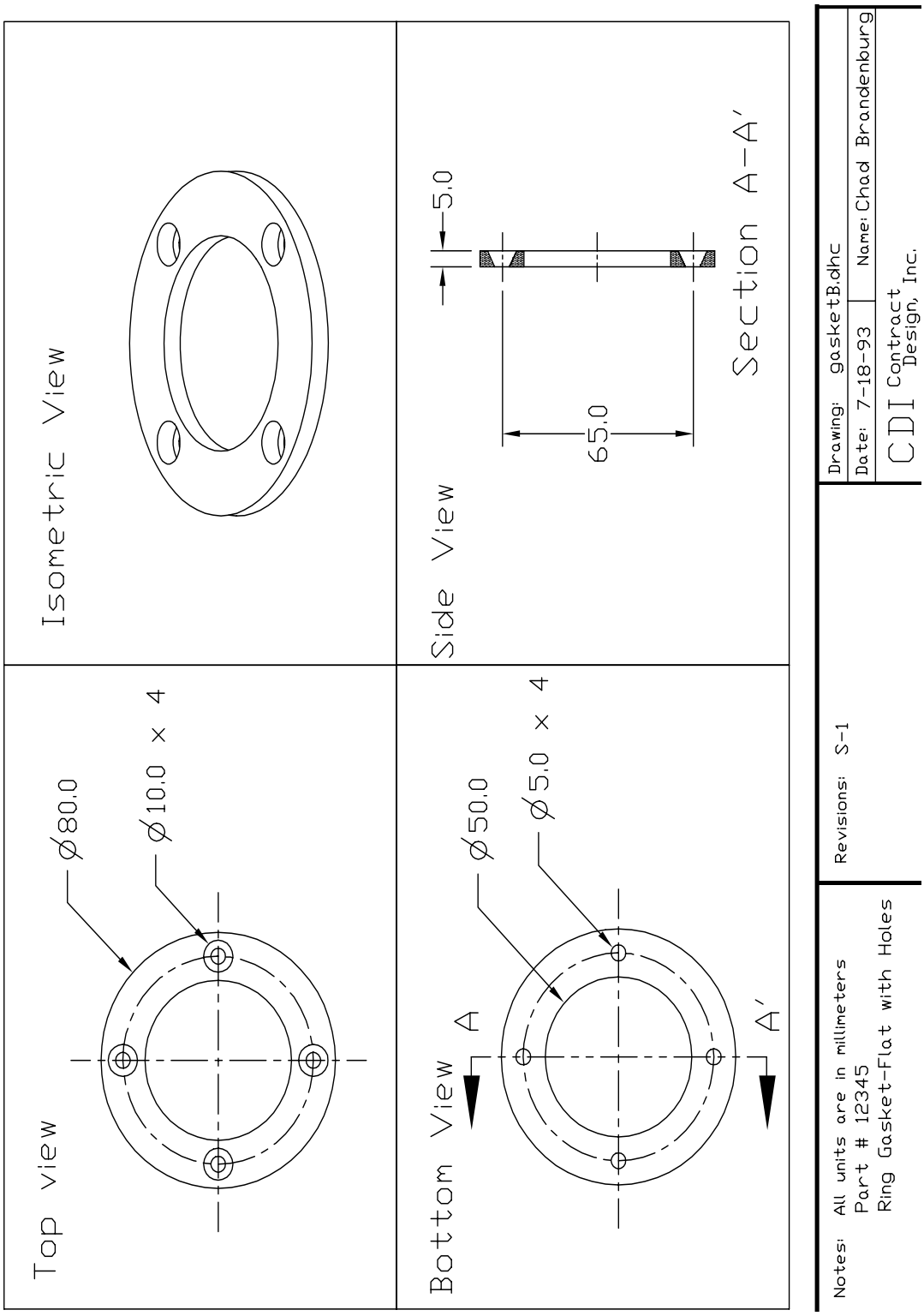

Figure 5 - Gasket B

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.13 Test case 250

Test case summary:

Test case 250 is designed to test the ability to define a Part_process_plan and its Process_operation.

6.13.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 13 - Application elements for case 250

Id	V	Application Elements	Value	Req
@2421	*	Part_process_plan	#1	M
@2422	*	Part_process_plan.approval	#6,#6	S
@2423	*	Part_process_plan.approval_status	#5,#5	S
@2424	*	Part_process_plan.creation_date_and_time	(#7,#7, #29,#29)	S
@2425	*	Part_process_plan.data_ownership	#10,#10	S
@2426	*	Part_process_plan.generating_system_-information	#15,#15	S
@2427	*	Part_process_plan.part_process_version_-identification	#18,'Version 2'	S
@2428	*	Part_process_plan.plan_status	#4,'1'	S
@2429	*	Part_process_plan.planner	#21,#21	S

Table 13 - Application elements for case 250 (continued)

Id	V	Application Elements	Value	Req
@2430	*	Part_process_plan.production_rate	#23,#23	S
@2431	*	Part_process_plan.proprietary_security_-usage_information	#26,#26	S

Table 13 - Application elements for case 250 (continued)

Id	V	Application Elements	Value	Req
@2432	*	Part_process_plan.review_date_and_time	#29,#29	S
@2433	*	Part_process_plan.version_description	#18,'Version 2'	S
@2434		Part_process_plan to Part_process_plan (<role description>)	<not_present>	M
@2437		Part_process_plan to Part_process_plan_-version_relationship (<role description>)	<not_present>	M
@2440		Part_process_plan to Part_process_plan_-version_relationship (<role description>)	<not_present>	M
@2443		Part_process_plan to Plant_constraint (<role description>)	<not_present>	M
@2446	*	Part_process_plan to Process_operation (defines a series of)	@2897	M
@2449		Final_part_definition to Part_process_plan (<inverse role>)	<not_present>	M
@2452		Part_process_plan to Part_process_plan (<inverse role>)	<not_present>	M
@2455		Part_process_plan_template to Part_process_-plan (<inverse role>)	<not_present>	M
@2897	*	Process_operation	#32	M
@2898	*	Process_operation.operation_description	#32,'Cutoff rough blanks'	S
@2899	*	Process_operation.operation_sequence_-number	#35,'1'	S
@2900	*	Process_operation.reference_specifications	#36,#36	S
@2901	*	Process_operation.required_shut_height	#39,#39	S
@2902	*	Process_operation.required_stamping_force	#39,#39	S
@2903	*	Process_operation.scrap_percentage	#40,#40	S
@2904	*	Process_operation.units_per_operation	#48,#48	S
@2905		Process_operation to Process_operation (<role description>)	<not_present>	M

Table 13 - Application elements for case 250 (concluded)

Id	V	Application Elements	Value	Req
@2908		Process_operation to Scrap_definition (<role description>)	<not_present>	M

Table 13 - Application elements for case 250 (concluded)

Id	V	Application Elements	Value	Req
@2911		Process_operation to Scrap_definition (<role description>)	<not_present>	M
@2914		Die_definition to Process_operation (<inverse role>)	<not_present>	M
@2917		In_process_part_definition to Process_-operation (<inverse role>)	<not_present>	M
@2920	*	Part_process_plan to Process_operation (<inverse role>)	@2421	M
@2923		Press_definition to Process_operation (<inverse role>)	<not_present>	M
@2926		Process_operation to Process_operation (<inverse role>)	<not_present>	M
@2780		Position_orientation_representation	#45	S

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.13.2 Postprocessor

Test purposes covered:

aim585, aim7, aim8, aim49, aim59, aim793, aim794, aim797, aim818, aim822, aim224, aim311, aim844, aim845, aim848, aim555, aim556, aim541, aim542, aim500, aim501, aim828, aim829, aim348, aim349, aim16, aim463, aim464, aim286, aim341, aim858, aim859, aim861, aim765, aim766, aim607, aim768, aim10, aim12, aim15, aim727, aim729, aim731, aim730, aim737, aim739, aim741, aim18, aim19, aim23

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.14 Test case 260

Test case summary:

Test case 260 is designed to test the ability to define two Part_process_plans and relationship between them using Part_process_plan_version_relationship

6.14.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 14 - Application elements for case 260

Id	V	Application Elements	Value	Req
@2421.1		Part_process_plan	#1	M
@2422		Part_process_plan.approval	#6,#6	S
@2423		Part_process_plan.approval_status	#5,#5	S
@2424		Part_process_plan.creation_date_and_time	(#7,#7, #29,#29, #86,#86)	S
@2425		Part_process_plan.data_ownership	#10,#10	S
@2426		Part_process_plan.generating_system_-information	#15,#15	S

Table 14 - Application elements for case 260 (continued)

Id	V	Application Elements	Value	Req
@2427		Part_process_plan.part_process_version_-identification	#18,#18	S
@2428		Part_process_plan.plan_status	#4,'1'	S

Table 14 - Application elements for case 260 (continued)

Id	V	Application Elements	Value	Req
@2429		Part_process_plan.planner	#21,#21	S
@2430		Part_process_plan.production_rate	#23,#23	S
@2431		Part_process_plan.proprietary_security_-usage_information	#26,#26	S
@2432		Part_process_plan.review_date_and_time	(#7,#7, #29,#29, #86,#86)	S
@2434		Part_process_plan to Part_process_plan (<role description>)	<not_present>	M
@2437	*	Part_process_plan to Part_process_plan_-version_relationship (is previous part_-process_plan in)	@2560	M
@2440		Part_process_plan to Part_process_plan_-version_relationship (<role description)	(<no_present)	M
@2443		Part_process_plan to Plant_constraint (<role description>)	<not_present>	M
@2446		Part_process_plan to Process_operation (<role description>)	<not_present>	M
@2449		Final_part_definition to Part_process_plan (<inverse role>)	<not_present>	M
@2452		Part_process_plan to Part_process_plan (<inverse role>)	<not_present>	M
@2455		Part_process_plan_template to Part_process_-plan (<inverse role>)	<not_present>	M
@2421.2		Part_process_plan	#70	M
@2422		Part_process_plan.approval	#74,#74	S
@2423		Part_process_plan.approval_status	#73,#73	S
@2424		Part_process_plan.creation_date_and_time	#75,#75	S
@2425		Part_process_plan.data_ownership	#78,#78	S
@2426		Part_process_plan.generating_system_-information	#79,#79	S
@2427		Part_process_plan.part_process_version_-identification	#80,'version 2'	S
@2428		Part_process_plan.plan_status	#72,'1'	S
@2429		Part_process_plan.planner	#83,#83	S

Table 14 - Application elements for case 260 (continued)

Id	V	Application Elements	Value	Req
@2430		Part_process_plan.production_rate	#84,#84	S
@2431		Part_process_plan.proprietary_security_-usage_information	#85,#85	S
@2432		Part_process_plan.review_date_and_time	#75,#75	S
@2434		Part_process_plan to Part_process_plan (<role description>)	<not_present>	M
@2437	*	Part_process_plan to Part_process_plan_-version_relationship (is next part_process_-plan in)	@2560	M
@2440		Part_process_plan to Part_process_plan_-version_relationship (<role description>)	<not_present>	M
@2443		Part_process_plan to Plant_constraint (<role description>)	<not_present>	M
@2446		Part_process_plan to Process_operation (<role description>)	<not_present>	M
@2449		Final_part_definition to Part_process_plan (<inverse role>)	<not_present>	M
@2452		Part_process_plan to Part_process_plan (<inverse role>)	<not_present>	M
@2455		Part_process_plan_template to Part_process_-plan (<inverse role>)	<not_present>	M
@2560	*	Part_process_plan_version_relationship	#99	M
@2561	*	Part_process_plan_version_relationship.revi-sion_reason	#99,'Process Plan B is based upon Process Plan A'	S
@2562	*	Part_process_plan to Part_process_plan_-version_relationship (<inverse role>)	@2421.1	M
@2565	*	Part_process_plan to Part_process_plan_-version_relationship (<inverse role>)	@2421.2	M

Table 14 - Application elements for case 260 (concluded)

Id	V	Application Elements	Value	Req
@2897		Process_operation	#32	M
@2898		Process_operation.operation_description	#32,'Cutoff rough blanks'	S

Table 14 - Application elements for case 260 (concluded)

Id	V	Application Elements	Value	Req
@2899		Process_operation.operation_sequence_-number	#35,'1'	S
@2900		Process_operation.reference_specification	#36,#36	S
@2901		Process_operation.required_shut_height	#39,#39	S
@2902		Process_operation.required_stamping_force	#39,#39	S
@2903		Process_operation.scrap_percentage	#48,#48	S
@2904		Process_operation.units_per_operation	#40,#40	S
@2905		Process_operation to Process_operation (<role description>)	<not_present>	M
@2908		Process_operation to Scrap_definition (<role description>)	<not_present>	M
@2911		Process_operation to Scrap_definition (<role description>)	<not_present>	M
@2914		Die_definition to Process_operation (<inverse role>)	<not_present>	M
@2917		In_process_part_definition to Process_-operation (<inverse role>)	<not_present>	M
@2920		Part_process_plan to Process_operation (<inverse role>)	@2421.1	M
@2923		Press_definition to Process_operation (<inverse role>)	<not_present>	M
@2926		Process_operation to Process_operation (<inverse role>)	<not_present>	M
@2780.1		Position_orientation_representation	#45	S
@2780.2		Position_orientation_representation	#90	S
@2780.3		Position_orientation_representation	#94	S

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.14.2 Postprocessor

Test purposes covered:

aim585, aim7, aim8, aim49, aim59, aim793, aim794, aim797, aim818, aim822, aim224, aim311, aim844, aim845, aim848, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim500, aim501, aim828, aim829, aim833, aim348, aim349, aim16, aim463, aim464, aim286, aim341, aim858, aim859, aim861, aim765, aim766, aim607, aim768, aim10, aim12, aim15, aim727, aim729, aim731, aim730, aim737, aim739, aim741, aim18, aim19, aim23

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.15 Test case 270

Test case summary:

Test case 270 is designed to test the ability to define a Part_process_plan with one Process_operation, A Press_definition used for Process_operation, A Die_definition_constraint which is a Press_definition and a Plant_constraint that constrains a Part_process_plan.

6.15.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 15 - Application elements for case 270

Id	V	Application Elements	Value	Req
@488		Die	#82	S
@1419		Item	#82	M
@1420		Item.item_description	#82,'Double Draw Die Right & Left'	S
@1421		Item.item_name	#82,'Double Draw Die Right & Left'	S
@1422		Item.item_number	#82,'4092056'	S
@1424		Item to Item_classification (is classified by)	@1478	M
@1427		Item to Item_version (is versioned by)	@1724	M
@1478		Item_classification	#87	M
@1479		Item_classification.classification_description	#87,''	S
@1480		Item_classification.classification_identification	#87,'die'	S
@1481		Item_classification.classification_name	#87,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419	M
@1724		Item_version	#81	M
@1725		Item_version.approval	#91	M
@1726		Item_version.approval_status	#93	M
@1727		Item_version.description	#81,'Double Draw Die Right & Left'	S
@1728		Item_version.item_version_identification	#81,'1'	S
@1728		Item_version.review_date_and_time	#94,#94	S

Table 15 - Application elements for case 270 (continued)

Id	V	Application Elements	Value	Req
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419	M
@2421		Part_process_plan	#1	M
@2422		Part_process_plan.approval	#6,#6	S
@2423		Part_process_plan.approval_status	#5,#5	S
@2424		Part_process_plan.creation_date_and_time	(#7,#7, #29,#29)	S
@2425		Part_process_plan.data_ownership	#10,#10	S
@2426		Part_process_plan.generating_system_information	#15,#15	S
@2427		Part_process_plan.part_process_version_identification	#18,'version 2'	S
@2428		Part_process_plan.plan_status	#4,'1'	S
@2429		Part_process_plan.planner	#21,#21	S
@2431		Part_process_plan.proprietary_security_usage_information	#26,#26	S
@2432		Part_process_plan.review_date_and_time	#29,#29	S
@2433		Part_process_plan.version_description	#18,'version 2')	S
@2434		Part_process_plan to Part_process_plan (<role description>)	<not_present>	M
@2437		Part_process_plan to Part_process_plan_version_relationship (<role description>)	<not_present>	M
@2440		Part_process_plan to Part_process_plan_version_relationship (<role description>)	<not_present>	M
@2443		Part_process_plan to Plant_constraint (is constrained by)	@2723	M
@2446		Part_process_plan to Process_operation (defines a series of)	@2897	M
@2449		Final_part_definition to Part_process_plan (<inverse role>)	<not_present>	M
@2452		Part_process_plan to Part_process_plan (<inverse role>)	<not_present>	M

Table 15 - Application elements for case 270 (continued)

Id	V	Application Elements	Value	Req
@2455		Part_process_plan_template to Part_process_-plan (<inverse role>)	<not_present>	M
@2723	*	Plant_constraint	#39	M
@2724	*	Plant_constraint.constraint_description	#39,'required shut height 59'	S
@2725	*	Plant_constraint.constraint_type	(#55,'press force', #58,'press line', #59,'press location', #60,'shut height')	S
@2726	*	Plant_constraint.constraint_value	#72,#72	S
@2727	*	Plant_constraint.plant_identification	#75,#75	S
@2728	*	Part_process_plan to Plant_constraint (constraints)	@2421	M
@2830	*	Press_definition	#68	M
@2831	*	Press_definition.automation_equipment	#53,#53	M
@2832	*	Press_definition.press_force	#98,#98	M
@2833	*	Press_definition.press_identification	#56,'SU4-1000-130-96'	M
@2834	*	Press_definition.press_line	#58,#58	M
@2835	*	Press_definition.press_location	#59,#59	M
@2836	*	Press_definition.press_size	#102,#102	M
@2837	*	Press_definition.press_specification_reference	#61,#61	M
@2838	*	Press_definition.press_type	#56,'Transfer press D-7'	M
@2840	*	Press_definition to Press_definition (<role description>)	(<not_present>	M
@2843	*	Press_definition to Process_operation (defines a press used for)	@2897	M
@2846	*	Press_definition to Press_definition (<inverse role>)	(<not_present>	M
@599	*	Die_definition_constraint	#74	M
@600	*	Die_definition_constraint.constraint_description	#90,'Die weights can not exceed 10 tons due to crane capacity	M
@602	*	Die_definition to Die_definition_-constraint(<inverse role>)	@538	M
@2897		Process_operation	#32	M

Table 15 - Application elements for case 270 (continued)

Id	V	Application Elements	Value	Req
@2898		Process_operation.operation_description	#32,'Cutoff rough blanks'	S
@2899		Process_operation.operation_sequence_-number	#35,'1'	S
@2900		Process_operation.reference_specification	#36,#36	S
@2901		Process_operation.required_shut_height	#39,#39	S
@2902		Process_operation.required_stamping_forces	#39,#39	S
@2903		Process_operation.scrap_percentage	#40,#40	S
@2904		Process_operation.units_per_operation	#48,#48	S
@2905		Process_operation to Process_operation (<role description>)	<not_present>	M
@2908		Process_operation to Scrap_definition (<role description>)	<not_present>	M
@2911		Process_operation to Scrap_definition (<role description>)	<not_present>	M
@2914	*	Die_definition to Process_operation (requires as tool the die defined by)	@538	M
@2917		In_process_part_definition to Process_-operation (<inverse role>)	<not_present>	M
@2920		Part_process_plan to Process_operation (<inverse role>)	<not_present>	M
@2923		Press_definition to Process_operation (<inverse role>)	<not_present>	M
@2926		Process_operation to Process_operation (<inverse role>)	<not_present>	M
@2780.1		Position_orientation_representation	#45	S
@2780.2		Position_orientation_representation	#71	S
@538		Die_definition	#104	S

Table 15 - Application elements for case 270 (concluded)

Id	V	Application Elements	Value	Req
@539		Die_definition.die_function_description	#80,'Double Draw Die Rt & Lt'	S

Table 15 - Application elements for case 270 (concluded)

Id	V	Application Elements	Value	Req
@540		Die_definition.die_layout_specification_reference	#105,#105	M
@541		Die_definition.die_structure_specification_reference	#108,#108	M
@542		Die_definition.die_weight	#80,'Double Draw Die Rt & Lt'	M
@541		Die_definition.pattern_casting_specification	#113,#113	M
@545	*	Die_definition to Die_definition_constraint (is constrained by)	@599	M
@545	*	Die_definition to Process_operation (defines tool for)	@2897	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria).

The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

Test purposes covered:

aim585, aim7, aim8, aim49, aim59, aim793, aim794, aim797, aim818, aim819, aim822, aim224, aim311, aim844, aim845, aim848, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim500, aim501, aim828, aim829, aim833, aim348, aim349, aim16, aim463, aim464, aim465, aim487, aim286, aim341, aim858, aim859, aim861, aim765, aim766, aim607, aim768, aim10, aim12, aim15, aim727, aim729, aim731, aim730, aim737, aim739, aim741, aim18, aim19, aim23, aim746, aim749, aim751, aim586, aim587, aim599, aim600, aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim608, aim793, aim49, aim59, aim794, aim799, aim825, aim603, aim605, aim614, aim616, aim828, aim829, aim834, aim348, aim349, aim341, aim880, aim889, aim904, aim882, aim912

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

6.15.2 Postprocessor

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.16 Test case 280

Test case summary:

Test case 280 is designed to test the ability to define Item_definition_relationship which is of type Make_-similar_to_relationship between two Items which are of type Part.

6.16.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ingnoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input Specification:

Table 16 - Application elements for case 280

Id	V	Application Elements	Value	Req
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Outer Panel for Hood'	S
@1421		Item.item_name	#1,'Panel- Hood Outer'	S
@1422		Item.item_number	#1,'1996003'	S

Table 16 - Application elements for case 280 (continued)

Id	V	Application Elements	Value	Req
@1425		Item to Item_classification (<is classified by>)	@1478.1,@1478.3,@1478.4	M
@1428		Item to Item_version (<is versioned by>)	@1724.1	M
@1419.2		Item	#30	M
@1420		Item.item_description	#30,'Outer Panel for Hood'	S
@1421		Item.item_name	#30,'Panel- Hood Outer'	S
@1422		Item.item_number	#30,'1997004'	S
@1425		Item to Item_classification (<is classified by>)	@1478.2,@1478.3,@1478.4	M
@1428		Item to Item_version (<is versioned by>)	@1724.2	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'part'	S
@1481		Item_classification.classification_name	#6,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<classifies>)	@1419.1	M
@1478.2		Item_classification	#32	M
@1479		Item_classification.classification_description	#32,''	S
@1480		Item_classification.classification_-identification	#32,'part'	S
@1481		Item_classification.classification_name	#32,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<classifies>)	@1419.2	M

Table 16 - Application elements for case 280 (continued)

Id	V	Application Elements	Value	Req
@1478.3		Item_classification	#39	M
@1479		Item_classification.classification_description	#39,''	S
@1480		Item_classification.classification_identification	#39,'part definition'	S
@1481		Item_classification.classification_name	#39,'part definition'	S
@1482		Item_classification to Item_classification_relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M
@1478.4		Item_classification	#41	M
@1479		Item_classification.classification_description	#41,''	S
@1480		Item_classification.classification_identification	#41,'internal'	S
@1481		Item_classification.classification_name	#41,'internal'	S
@1482		Item_classification to Item_classification_relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M
@2202.1		Part	#1	S
@2202.2		Part	#30	S
@382.1		Designed_item	#14	M
@383		Designed_item.creation_date_and_time	#42,#42	S
@384		Designed_item.data_exchange_history	(#45,#45, #45,#45)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_information	#56,#56	S

Table 16 - Application elements for case 280 (continued)

Id	V	Application Elements	Value	Req
@388		Designed_item.media_requirements	#55,#55	S
@382.2		Designed_item	#36	M
@383		Designed_item.creation_date_and_time	#58,#58	S
@384		Designed_item.data_exchange_history	(#60,#60, #60,#60)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#57,#57	S
@388		Designed_item.media_requirements	#55,#55	S
@1204.1		Final_part_definition	#14	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1204.2		Final_part_definition	#36	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2252.1		Part_definition	#14	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@2252.2		Part_definition	#36	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667	*	Item_definition_relationship	#37	M
@1668	*	Item_definition_relationship.relationship_-description	#37,'Part 1997004 is designed similar to Part 1996003'	S
@1669	*	Item_definition to Item_definition_-relationship (<inverse role>)	@1597.1	M

Table 16 - Application elements for case 280 (continued)

Id	V	Application Elements	Value	Req
@1672	*	Item_definition to Item_definition_-relationship (<inverse role>)	@1597.2	M
@1885	*	Make_similar_to_relationship	#37	S
@1724.1		Item_version	#4	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#4,'Outer Panel for Hood'	S
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#10,#10	S
@1732		Item_version to Item_definition (is defined by)	1597.1	M
@1734		Item to Item_version (<versions>)	@1419.1	M
@1724.2		Item_version	#31	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#31,'Outer Panel for Hood'	S
@1728		Item_version.item_version_identification	#31,'2'	S
@1729		Item_version.revision_date_and_time	#61,#61	S
@1732		Item_version to Item_definition (is defined by)	1597.2	M
@1734		Item to Item_version (<versions>)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#76,'Design of Outer Panel hood'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M

Table 16 - Application elements for case 280 (concluded)

Id	V	Application Elements	Value	Req
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	@1667	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@1597.2		Item_definition	#36	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#76,'Design of Outer Panel hood'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	@1667	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@3449	*	Similarity_relationship	#37	S

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.16.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim608, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim348, aim349, aim614

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.17 Test case 290

Test case summary:

Test case 290 is designed to test the ability to define Item_definition_relationship which is of type Symetrical_Item_relationship between two Items which are of type Part.

6.17.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ingnoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 17 - Application elements for case 290

Id	V	Application Elements	Value	Req
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Outer Panel for For Right Hand Door'	S
@1421		Item.item_name	#1,'Outer Panel Door Right'	S
@1422		Item.item_number	#1,'330010'	S
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.3,@1478.4	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1419.2		Item	#30	M
@1420		Item.item_description	#30,'Outer Panel for Left Hand Door'	S
@1421		Item.item_name	#30,'Outer Panel- Door Left'	S
@1422		Item.item_number	#30,'330009'	S
@1425		Item to Item_classification (is classified by)	@1478.2,@1478.3,@1478.4	M
@1428		Item to Item_version (is versioned by)	@1724.3,@1724.4	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'part'	S
@1481		Item_classification.classification_name	#6,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419.1	M
@1478.2		Item_classification	#32	M
@1479		Item_classification.classification_description	#32,''	S

Table 17 - Application elements for case 290 (continued)

Id	V	Application Elements	Value	Req
@1480		Item_classification.classification_-identification	#32,'part'	S
@1481		Item_classification.classification_name	#32,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419.2	M
@1478.3		Item_classification	#39	M
@1479		Item_classification.classification_description	#39,''	S
@1480		Item_classification.classification_-identification	#39,'part definition'	S
@1481		Item_classification.classification_name	#39,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<inverse role>)	@1419.1,@1419.2	M
@1478.4		Item_classification	#41	M
@1479		Item_classification.classification_description	#41,''	S
@1480		Item_classification.classification_-identification	#41,'internal'	S
@1481		Item_classification.classification_name	#41,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<inverse role>)	@1419.1,@1419.2	M
@2202.1		Part	#1	S
@2202.2		Part	#30	S
@382.1		Designed_item	#14	M
@383		Designed_item.creation_date_and_time	#42,#42	S

Table 17 - Application elements for case 290 (continued)

Id	V	Application Elements	Value	Req
@384		Designed_item.data_exchange_history	(#45,#45, #45,#45)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#56,#56	S
@388		Designed_item.media_requirements	#55,#55	S
@382.2		Designed_item	#36	M
@383		Designed_item.creation_date_and_time	#58,#58	S
@384		Designed_item.data_exchange_history	(#60,#60, #60,#60)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#57,#57	S
@388		Designed_item.media_requirements	#55,#55	S
@1204.1		Final_part_definition	#14	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@1204.2		Final_part_definition	#36	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2252.1		Part_definition	#14	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@2252.2		Part_definition	#36	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667.1		Item_definition_relationship	#37	M

Table 17 - Application elements for case 290 (continued)

Id	V	Application Elements	Value	Req
@1668		Item_definition_relationship.relationship_-description	#37,'Part 330010 is designed symmetrical to Part 330009'	S
@1669		Item_definition to Item_definition_-relationship (<inverse role>)	<not_present>	M
@1672		Item_definition to Item_definition_-relationship (<inverse role>)	<not_present>	M
@3818	*	Symmetrical_item_relationship	#37	S
@1724.1		Item_version	#4	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#4,'Outer Panel for Right Hand Door'	S
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#42,#42	S
@1732		Item_version to Item_definition (is defined by)	<not_present>	M
@1734		Item to Item_version (versions)	@1419.1	M
@1724.3		Item_version	#31	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#31,'Outer Panel for Left Hand Door'	S
@1728		Item_version.item_version_identification	#31,'2'	S
@1729		Item_version.revision_date_and_time	#61,#61	S
@1732		Item_version to Item_definition (is defined by)	<not_present>	M
@1734		Item to Item_version (versions)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#76,'Design of Outer Panel for Right Hand Door'	M

Table 17 - Application elements for case 290 (continued)

Id	V	Application Elements	Value	Req
@1601		Item_definition.procurement_information	#19,#19	M

Table 17 - Application elements for case 290 (concluded)

Id	V	Application Elements	Value	Req
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	@1667	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@1597.2		Item_definition	#36	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_description	#76,'Design of Design of Outer Panel for Left Hand Door'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	@1667	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.17.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim608, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim348, aim349, aim614

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.18 Test case 300

Test case summary:

Test case 300 is designed to test the ability to define Item_definition_relationship which is of type Assembly_component_relationship between two Items which are of type Die.

6.18.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any), whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 18 - Application elements for case 300

Id	V	Application Elements	Value	Req
@488.1		Die	#1	S
@488.2		Die	#70	S
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Lower Shoe for Lower Assembly'	S
@1421		Item.item_name	#1,'Lower Shoe'	S
@1422		Item.item_number	#1,'4545008'	S
@1425		Item to Item_classification (<is classified by>)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (<is versioned by>)	@1724.1,@1724.2	M
@1419.2		Item	#70	M
@1420		Item.item_description	#70,'Lower Assembly of a Draw Die'	S
@1421		Item.item_name	#70,'Lower Assembly'	S
@1422		Item.item_number	#70,'3232009'	S
@1425		Item to Item_classification (<is classified by>)	@1478.4,@1478.2,@1478.3	M
@1428		Item to Item_version (<is versioned by>)	@1724.3,@1724.4	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'die'	S
@1481		Item_classification.classification_name	#6,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Id	V	Application Elements	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 18 - Application elements for case 300 (continued)

Id	V	Application Elements	Value	Req
@1489		Item to Item_classification (<classifies>)	@1419.1	M
@1478.2		Item_classification	#39	M
@1479		Item_classification.classification_description	#39,''	S
@1480		Item_classification.classification_-identification	#39,'die definition'	S
@1481		Item_classification.classification_name	#39,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M
@1478.3		Item_classification	#41	M
@1479		Item_classification.classification_description	#41,''	S
@1480		Item_classification.classification_-identification	#41,'internal'	S
@1481		Item_classification.classification_name	#41,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M
@1478.4		Item_classification	#72	M
@1479		Item_classification.classification_description	#72,''	S
@1480		Item_classification.classification_-identification	#72,'die'	S
@1481		Item_classification.classification_name	#72,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 18 - Application elements for case 300 (continued)

Id	V	Application Elements	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<classifies>)	@1419.2	M
@382.1		Designed_item	#14	M
@383		Designed_item.creation_date_and_time	#42,#42	S
@384		Designed_item.data_exchange_history	(#45,#45, #45,#45)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#56,#56	S
@388		Designed_item.media_requirement	#55,#55	S
@382.2		Designed_item	#76	M
@383		Designed_item.creation_date_and_time	#82,#82	S
@384		Designed_item.data_exchange_history	(#84,#84, #84,#84)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#77,#77	S
@388		Designed_item.media_requirement	#55,#55	S
@538.1		Die_definition	#56	M
@539		Die_definition.die_function_description	#56,'Die definition of lower shoe'	S
@540		Die_definition.die_layout_specification_-reference	#57,#57	S
@541		Die_definition.die_structure_specification_-reference	#60,#60	S
@542		Die_definition.die_weight	#56,'generatin system information'	S
@543		Die_definition.die_pattern_casting_-specification	#63,#63	S

Table 18 - Application elements for case 300 (continued)

Id	V	Application Elements	Value	Req
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@538.2		Die_definition	#77	M
@539		Die_definition.die_function_description	#77,'Die definition of lower assembly'	S
@540		Die_definition.die_layout_specification_-reference	#85,#85	S
@541		Die_definition.die_structure_specification_-reference	#86,#86	S
@542		Die_definition.die_weight	#77,'Die definition of lower assembly'	S
@543		Die_definition.die_pattern_casting_-specification	#87,#87	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@57	*	Assembly_component_relationship	#78	M
@58	*	Assembly_component_-relationship.component_quantity	#79,#79	S
@59		Assembly_component_relationship to Assembly_component_relationship (<role description>)	<not_present>	M
@62		Assembly_component_relationship to Shape_-definition (<role description>)	<not_present>	M
@65		Assembly_component_relationship to Assembly_component_relationship (<inverse role>)	<not_present>	M
@1724.1		Item_version	#4	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S

Table 18 - Application elements for case 300 (continued)

Id	V	Application Elements	Value	Req
@1727		Item_version.description	#4,'Lower Shoe for Lower Assembly'	S
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#42,#42	S
@1732		Item_version to Item_definition (<defined by>)	@1597	M
@1734		Item to Item_version (<versions>)	@1419.1	M
@1724.2		Item_version	#71	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#71,'Lower Assembly of a Draw Die'	S
@1728		Item_version.item_version_identification	#71,'2'	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#14,'Lower Shoe for Lower Assembly'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M

Table 18 - Application elements for case 300 (continued)

Id	V	Application Elements	Value	Req
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.1	M

Table 18 - Application elements for case 300 (concluded)

Id	V	Application Elements	Value	Req
@1597.2		Item_definition	#76	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#76,'Design of Lower Assembly of a Draw Die'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@1667		Item_definition_relationship	#88	M
@1668		Item_definition_relationship.relationship_-description	#88,'assembly component'	M
@1670		Item_definition to Item_definition_-relationship <inverse role>	@1597.1	M"

Table 18 - Application elements for case 300 (concluded)

Id	V	Application Elements	Value	Req
@1673		Item_definition to Item_definition_-relationship <inverse role>	@1597.2	M"

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.18.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim608, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim542, aim544, aim548, aim551, aim554, aim557, aim851, aim855, aim614, aim348, aim349, aim828, aim829, aim834, aim634, aim636, aim473, aim474, aim341, aim286

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.19 Test case 310

Test case summary:

Test case 310 is designed to test the ability to define Item_definition_relationship which is of type Mating_relationship between two Items which are of type Die.

6.19.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 19 - Application elements for case 310

Id	V	Application Elements	Value	Req
@488.1		Die	#1	S
@488.2		Die	#70	S
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Lower Shoe for Lower Assembly'	S
@1421		Item.item_name	#1,'Lower Shoe'	S
@1422		Item.item_number	#1,'4545008'	S
@1425		Item to Item_classification (<is classified by>)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (<is versioned by>)	@1724.1,@1724.2	M
@1419.2		Item	#70	M
@1420		Item.item_description	#70,'Binder Ring'	S
@1421		Item.item_name	#70,'Binder Ring'	S
@1422		Item.item_number	#70,'3232009'	S
@1425		Item to Item_classification (<is classified by>)	@1478.4,@1478.2,@1478.3	M

Id	V	Application Elements	Value	Req
@1428		Item to Item_version (<is versioned by>)	@1724.3,@1724.4	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S

Table 19 - Application elements for case 310 (continued)

Id	V	Application Elements	Value	Req
@1480		Item_classification.classification_-identification	#6,'die'	S
@1481		Item_classification.classification_name	#6,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<classifies>)	@1419.1	M
@1478.2		Item_classification	#39	M
@1479		Item_classification.classification_description	#39,''	S
@1480		Item_classification.classification_-identification	#39,'die definition'	S
@1481		Item_classification.classification_name	#39,'die definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M
@1478.3		Item_classification	#41	M
@1479		Item_classification.classification_description	#41,''	S
@1480		Item_classification.classification_-identification	#41,'internal'	S
@1481		Item_classification.classification_name	#41,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1490		Item to Item_classification (<classifies>)	@1419.1,@1419.2	M

Table 19 - Application elements for case 310 (continued)

Id	V	Application Elements	Value	Req
@1478.4		Item_classification	#72	M
@1479		Item_classification.classification_description	#72,''	S
@1480		Item_classification.classification_-identification	#72,'die'	S
@1481		Item_classification.classification_name	#72,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<classifies>)	@1419.2	M
@382.1		Designed_item	#14	M
@383		Designed_item.creation_date_and_time	#42,#42	S
@384		Designed_item.data_exchange_history	(#45,#45, #45,#45)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#56,#56	S
@388		Designed_item.media_requirement	#55,#55	S
@382.2		Designed_item	#76	M
@383		Designed_item.creation_date_and_time	#82,#82	S
@384		Designed_item.data_exchange_history	(#84,#84, #84,#84)	S
@385		Designed_item.data_ownership	#46,#46	S
@386		Designed_item.designer	#51,#51	S
@387		Designed_item.generating_system_-information	#77,#77	S
@388		Designed_item.media_requirement	#55,#55	S
@538.1		Die_definition	#56	M
@539		Die_definition.die_function_description	#56,'Die definition of lower shoe'	S

Table 19 - Application elements for case 310 (continued)

Id	V	Application Elements	Value	Req
@540		Die_definition.die_layout_specification_-reference	#57,#57	S
@541		Die_definition.die_structure_specification_-reference	#60,#60	S
@542		Die_definition.die_weight	#56,'generatin system information'	S
@543		Die_definition.die_pattern_casting_-specification	#63,#63	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@538.2		Die_definition	#77	M
@539		Die_definition.die_function_description	#77,'Die definition of Binder Ring'	S
@540		Die_definition.die_layout_specification_-reference	#85,#85	S
@541		Die_definition.die_structure_specification_-reference	#86,#86	S
@542		Die_definition.die_weight	#77,'Die definition of Binder Ring'	S
@543		Die_definition.die_pattern_casting_-specification	#87,#87	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@1724.1		Item_version	#4	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#4,'Lower Shoe for Lower Assembly'	S

Table 19 - Application elements for case 310 (continued)

Id	V	Application Elements	Value	Req
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#42,#42	S
@1732		Item_version to Item_definition (<defined by>)	@1597	M
@1734		Item to Item_version (<versions>)	@1419.1	M
@1724.2		Item_version	#71	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#71,'Binder Ring of a Draw Die'	S
@1728		Item_version.item_version_identification	#71,'2'	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#14,'Lower Shoe for Lower Assembly'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M

Table 19 - Application elements for case 310 (continued)

Id	V	Application Elements	Value	Req
@1616		Item_version to Item_definition (<inverse role>)	@1724.1	M
@1597.2		Item_definition	#76	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#76,'Design of Binder Ring of a Draw Die'	M

Table 19 - Application elements for case 310 (concluded)

Id	V	Application Elements	Value	Req
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@1667		Item_definition_relationship	#88	M
@1668		Item_definition_relationship.relationship_-description	#88,'Binder Ring is tightly bolted to the Lower Shoe'	M
@1670		Item_definition to Item_definition_-relationship <inverse role>	@1597.1	M
@1673		Item_definition to Item_definition_-relationship <inverse role>	@1597.2	M
@2149	*	Mating_relationship	#88	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.19.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim608, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim850, aim851, aim855, aim348, aim349, aim614, aim828, aim829, aim834

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.20 Test case 320

Test case summary:

Test case 320 is designed to test the ability to define Item_definition_relationship which is of type Specified_material_relationship between two Items where one item is Part and other item is Material.

6.20.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ingnoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 20 - Application elements for case 320

Id	V	Application Elements	Value	Req
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Outer Panel for Hood'	S
@1421		Item.item_name	#1,'Panel- Hood Outer'	S
@1422		Item.item_number	#1,'1996003'	S
@1424		Item to Item_classification (is classified by)	@1478.1	M
@1428		Item to Item_version (is versioned by)	@1724.1	M
@1419.2		Item	#63	M
@1420		Item.item_description	#63,'Steel'	S
@1421		Item.item_name	#63,'AFG6201-M'	S
@1422		Item.item_number	#63,'mtr35'	S
@1425		Item to Item_classification (is classified by)	@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.3,@1724.4	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'part'	S
@1481		Item_classification.classification_name	#6,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419.1	M
@1478.2		Item_classification	#66	M
@1479		Item_classification.classification_description	#66,''	S
@1480		Item_classification.classification_-identification	#66,'material'	S

@1481		Item_classification.classification_name	#66,'material'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M

Table 20 - Application elements for case 320 (continued)

Id	V	Application Elements	Value	Req
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (classifies)	@1419.2	M
@1478.3		Item_classification	#80	M
@1479		Item_classification.classification_description	#80,''	S
@1480		Item_classification.classification_-identification	#80,'external'	S
@1481		Item_classification.classification_name	#80,'external'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419.2	M
@1991	*	Material	#63	S
@2202		Part	#1	S
@925		External_item_reference	#76	M
@926		External_item_reference.manual_reference_-description	(#76, #76)	S
@927		External_item_reference.name	#63,'AFG6201-M'	S
@928		External_item_reference.needed_-modifications	#76,'External Item Reference'	S
@1204		Final_part_definition	#14	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2041	*	Material_definition	#76	M
@2042	*	Material_definition.material_description	#76,'External Item Reference'	S

Table 20 - Application elements for case 320 (continued)

Id	V	Application Elements	Value	Req
@2043	*	Material_definition.material_specification	#82,'doc-l1'	S
@2044		Part_definition to Material_definition (<inverse role>)	<not_present>	M
@2252.1		Part_definition	#14	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1667		Item_definition_relationship	#84	M
@1668		Item_definition_relationship.relationship_description	#84,'Specified Material Relationship'	S
@1669		Item_definition to Item_definition_relationship (<inverse role>)	@1597.1	M
@1672		Item_definition to Item_definition_relationship (<inverse role>)	@1597.2	M
@3601	*	Specified_material_relationship	#84	M
@3602	*	Specified_material_relationship.material_quantity	#85,#85	S
@3603		Specified_material_relationship to Specified_material_relationship (<role description>)	<not_present>	M
@3606		Specified_material_relationship to Specified_material_relationship (<inverse role>)	<not_present>	M
@1724.1		Item_version	#4	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#4,'Outer Panel for Hood'	S
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#10,#10	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.1	M
@1724.2		Item_version	#67	M
@1725		Item_version.approval	#7,#7	S

Table 20 - Application elements for case 320 (continued)

Id	V	Application Elements	Value	Req
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#67,'Raw steel'	S
@1728		Item_version.item_version_identification	#67,'1.2'	S
@1729		Item_version.revision_date_and_time	#69,#69	S
@1731		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#14,'Design of Outer Panel hood'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	@1667	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M
@1597.2		Item_definition	#71	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#71,'Definition of raw steel used to make outer panel'	M
@1601		Item_definition.procurement_information	#73,#73	M

Table 20 - Application elements for case 320 (concluded)

Id	V	Application Elements	Value	Req
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	@1667	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.2	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.20.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim850, aim851, aim855, aim348, aim349, aim452, aim614, aim473, aim474, aim341, aim287

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.21 Test case 330

Test case summary:

Test case 330 is designed to test the ability to define Item_definition_relationship which is of type Input_-item_die_relationship between two Items where one item is Die and other item is Part.

6.21.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 21 - Application elements for case 330

Id	V	Application Elements	Value	Req
@488		Die	#70	S
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Outer Panel for Hood'	S
@1421		Item.item_name	#1,'Panel- Hood Outer'	S
@1422		Item.item_number	#1,'1996003'	S

Table 21 - Application elements for case 330 (continued)

Id	V	Application Elements	Value	Req
@1424		Item to Item_classification (is classified by)	@1478.1	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1419.2		Item	#70	M
@1420		Item.item_description	#70,'Trim Die'	S
@1421		Item.item_name	#70,'Trim Die'	S
@1422		Item.item_number	#70,'4545008'	S
@1424		Item to Item_classification (is classified by)	@1478.2	M
@1428		Item to Item_version (is versioned by)	@1724.3,@1724.4	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'part'	S
@1481		Item_classification.classification_name	#6,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419.1	M
@1478.2		Item_classification	#75	M
@1479		Item_classification.classification_description	#75,''	S
@1480		Item_classification.classification_-identification	#75,'die'	S
@1481		Item_classification.classification_name	#75,'die'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (<inverse role>)	@1419.2	M
@2202		Part	#1	S
@538		Die_definition	#79	M

Table 21 - Application elements for case 330 (continued)

Id	V	Application Elements	Value	Req
@539		Die_definition.die_function_description	#79,'Die Definition of Trim Die'	S
@540		Die_definition.die_layout_specification_-reference	#80,#80	S
@541		Die_definition.die_structure_specification_-reference	#83,#83	S
@542		Die_definition.die_weight	#79,'Die Definition of Trim Die'	S
@543		Die_definition.die_pattern_casting_-specification	#86,#86	S
@544		Die_definition to Die_definition_constraint (<role description>)	<not_present>	M
@547		Die_definition to Process_operation (<role description>)	<not_present>	M
@1204.1		Final_part_definition	#14	S
@1205		Final_part_definition to Part_on_product (<role description>)	<not_present>	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2252.1		Part_definition	#14	S
@2253	*	Part_definition to Material_definition (<role description>)	<not_present>	M
@1260	*	Input_item_die_relationship	#89	S
@1261		Input_item_die_relationship to Shape_-definition (<role description>)	<not_present>	M
@1667		Item_definition_relationship	#89	M
@1668		Item_definition_relationship.relationship_-description	#89,'Outer panel for hood is trimmed by the Trim Die'	S
@1669		Item_definition to Item_definition_-relationship (<inverse role>)	@1597.1	M
@1672		Item_definition to Item_definition_-relationship (<inverse role>)	@1597.2	M
@1724.1		Item_version	#4	M

Table 21 - Application elements for case 330 (continued)

Id	V	Application Elements	Value	Req
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#4,'Outer Panel for Hood'	S
@1728		Item_version.item_version_identification	#4,'2'	S
@1729		Item_version.revision_date_and_time	#10,#10	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.1	M
@1724.2		Item_version	#73	M
@1725		Item_version.approval	#7,#7	S
@1726		Item_version.approval_status	#9,#9	S
@1727		Item_version.description	#73,'Trim Die'	S
@1728		Item_version.item_version_identification	#73,'2'	S
@1729		Item_version.revision_date_and_time	#61,#61	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.2	M
@1597.1		Item_definition	#14	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#14,'Design of Outer Panel hood'	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M

Table 21 - Application elements for case 330 (concluded)

Id	V	Application Elements	Value	Req
@1604		Item_definition to Feature (<role description>)	<not_present>	M

Table 21 - Application elements for case 330 (concluded)

Id	V	Application Elements	Value	Req
@1607		Item_definition to Item_definition_-relationship (<is first in>)	@1667	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.1	M
@1597.2		Item_definition	#77	M
@1598		Item_definition.approval	#16,#16	M
@1599		Item_definition.approval_status	#18,#18	M
@1600		Item_definition.definition_descritption	#77,''	M
@1601		Item_definition.procurement_information	#19,#19	M
@1602		Item_definition.proprietary_security_usage_-information	#22,#22	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<is first in>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<is second in>)	@1667	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616		Item_version to Item_definition (<inverse role>)	@1724.1	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.21.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim793, aim795, aim799, aim49, aim59, aim818, aim819, aim825, aim224, aim311, aim603, aim605, aim599, aim600, aim836, aim838, aim842, aim500, aim501, aim503, aim858, aim860, aim862, aim765, aim766, aim767, aim844, aim846, aim849, aim555, aim556, aim541, aim543, aim545, aim548, aim551, aim554, aim557, aim850, aim851, aim855, aim614, aim348, aim349, aim423, aim828, aim829, aim834, aim423

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.22 Test case 340

Test case summary:

Test case 340 is designed to test the ability to define Item_classification_relationship where two items are Parts.

6.22.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 22 - Application elements for case 340

Id	V	Application Elements	Value	Req
@1419.1		Item	#1	M
@1420		Item.item_description	#1,'Front Door for 98J'	S
@1421		Item.item_name	#1,'Front Door'	S
@1422		Item.item_number	#1,'39390'	S
@1424		Item to Item_classification (is classified by)	@1478.1	M
@1419.2		Item	#5	M
@1420		Item.item_description	#5,'Outer Panel for 98J'	S
@1421		Item.item_name	#5,'Outer Panel'	S
@1422		Item.item_number	#5,'45902'	S
@1424		Item to Item_classification (is classified by)	@1478	M
@1426		Item to Item_version (< role description >)	< not_present >	M
@1478.1		Item_classification	#6	M
@1479		Item_classification.classification_description	#6,''	S
@1480		Item_classification.classification_-identification	#6,'part'	S
@1481		Item_classification.classification_name	#6,'part'	S
@1483	*	Item_classification to Item_classification_-relationship (is primary in)	@1540	M
@1486		Item_classification to Item_classification_-relationship (< role description >)	(< not_present >)	M

Table 22 - Application elements for case 340 (concluded)

Id	V	Application Elements	Value	Req
@1490		Item to Item_classification (< inverse role >)	@1419.1,@1419.2	M
@1478.2		Item_classification	#7	M
@1479		Item_classification.classification_description	#7,''	S
@1480		Item_classification.classification_-identification	#7,'part'	S
@1481		Item_classification.classification_name	#7,'part'	S
@1483		Item_classification to Item_classification_-relationship (is primary in)	< not_present >	M

Table 22 - Application elements for case 340 (concluded)

Id	V	Application Elements	Value	Req
@1486	*	Item_classification to Item_classification_-relationship (is secondary in)	@1540	M
@1490		Item to Item_classification (<inverse role>)	@1419.1,@1419.2	M
@1540	*	Item_classification_relationship	#8	M
@1541	*	Item_classification_-relationship.relationship_description	#7,'Outer panel is used for Front Door on 98J car'	S
@1544	*	Item_classification to Item_classification_-relationship (<inverse role>)	@1478.1	M
@1547	*	Item_classification to Item_classification_-relationship (<inverse role>)	@1478.2	M
@2202.1		Part	#1	S
@2202.2		Part	#5	S

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.22.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim622, aim624, aim625, aim595

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.23 Test case 350

Test case summary:

Test case 350 is designed to test the ability to define a Work_item that results from a Work_order which is of type Start_order.

6.23.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ingnoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 23 - Application elements for case 350

Id	V	Application Elements	Value	Req
@2780		Position_orientation_representation	#58	S
@3658		Start_order	#1	S

Table 23 - Application elements for case 350 (concluded)

Id	V	Application Elements	Value	Req
@3659		External_order to Start_order (<inverse role>)	<not_present>	M
@3663	*	Work_item to Start_order (initiates)	@4029	M
@4029	*	Work_item	#62	M
@4031	*	Work_item.approval	(#7,#7, #9,#9, #12,#12)	S
@4032	*	Work_item.completion_date_and_time	(#64,#64)	S
@4033	*	Work_item.order_date_and_time	(#66,#66)	S

Table 23 - Application elements for case 350 (concluded)

Id	V	Application Elements	Value	Req
@4034	*	Work_item.preliminary_review_date_and_-time	(#69,#69)	S
@4036	*	Work_item.start_date_and_time	(#71,#71)	S
@4040	*	Work_item to Start_order (is initiated by)	@3658	M
@4042		Change_order to Work_item (<inverse role>)	<not_present>	M
@4045		Change_order to Work_item (<inverse role>)	<not_present>	M
@4097		Work_order	#1,#1	M
@4099		Work_order.approval	(#7,#7, #9,#9,#12,#12)	S
@4103		Work_order.priority	#1,'Feasibility study and line-up'	S
@4106		Work_order.work_description	#2,'Feasibility Study and line-up'	S
@4107		Work_order.work_order_number	#1,'WO678'	S
@4109		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4112		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4115		Work_order_responsibility to Work_order (<inverse role>)	<not_present>	M
@4118		Work_request to Work_order (results from)	@4281	M
@3714		Start_request	#36	M
@3715		Start_request.request_description	#36,'Feasibility Study and line-up'	S
@3716		Start_request.request_justification	#36,'start'	S
@4281		Work_request	#36	M
@4282		Work_request.date_and_time_of_request	#51,#51	S
@4283		Work_request.requestor	#54,#54	S
@4284		Work_request.work_request_identification	#36	S
@4285		Work_request to Work_order (results in)	<not_present>	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.23.2 Postprocessor

Test purposes covered:

aim930, aim7, aim8, aim828, aim830, aim832, aim348, aim349, aim369, aim49, aim59, aim50, aim224, aim54, aim56, aim58, aim541, aim543, aim545, aim548, aim551, aim554, aim818, aim819, aim821, aim311, aim463, aim464, aim286, aim18, aim19, aim22, aim33, aim1033, aim836, aim837, aim841, aim500, aim501, aim503, aim2, aim3, aim345, aim341, aim850, aim851, aim857, aim541, aim542, aim544, aim548, aim551, aim554, aim557, aim793, aim795, aim796, aim727, aim730, aim728, aim15, aim10, aim12, aim786, aim787, aim789

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.24 Test case 360

Test case summary:

Test case 360 is designed to test the ability to define Work_order_relationship, which is a relationship between two Work_orders of type Start_order.

6.24.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ingnoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 24 - Application elements for case 360

Id	V	Application Elements	Value	Req
@3658.1		Start_order	#1	S
@3659		External_order to Start_order (<inverse role>)	<not_present>	M
@3662		Work_item to Start_order (<inverse role>)	<not_present>	M
@3658.2		Start_order	#70	S
@3659		External_order to Start_order (<inverse role>)	<not_present>	M
@3662		Work_item to Start_order (<inverse role>)	<not_present>	M
@4097.1		Work_order	#1,#1	M
@4099		Work_order.approval	(#7,#7, #9,#9, #12,#12)	S
@4103		Work_order.priority	#1,'Plan the production process'	S
@4106		Work_order.work_description	#2,'Plan the production process'	S
@4107		Work_order.work_order_number	#1,'WO678'	S

Table 24 - Application elements for case 360 (continued)

Id	V	Application Elements	Value	Req
@4110	*	Work_order to Work_order_relationship (is primary in)	@4170	M
@4112		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4115		Work_order_responsibility to Work_order (<inverse role>)	<not_present>	M
@4118		Work_request to Work_order (Results from)	@4281	M

Table 24 - Application elements for case 360 (continued)

Id	V	Application Elements	Value	Req
@4097.2		Work_order	#70,#70	M
@4099		Work_order.approval	(#76,#76, #78,#78, #80,#80)	S
@4103		Work_order.priority	#70,'Design the in-process shapes of the part'	S
@4106		Work_order.work_description	#71,'Design the in-process shapes of the part'	S
@4107		Work_order.work_order_number	#70,'WO700'	S
@4109		Work_order to Work_order_relationship (<role description>)	<not_present>	M
@4113	*	Work_order to Work_order_relationship (is secondary in)	@4170	M
@4115		Work_order_responsibility to Work_order (<inverse role>)	<not_present>	M
@4118		Work_request to Work_order (Results from)	<not_present>	M
@4170	*	Work_order_relationship	#123	M
@4171	*	Work_order_relationship.description	#123,'Production planning and designing the inprocess shapes of the part should be completed simultaneously'	S
@4174	*	Work_order to Work_order_relationship (<inverse role>)	@4097.1	M
@4177	*	Work_order to Work_order_relationship (<inverse role>)	@4097.2	M
@3714		Start_request	#36	M

Table 24 - Application elements for case 360 (concluded)

Id	V	Application Elements	Value	Req
@3715		Start_request.request_description	#36,'Plan the production process and design the in-process shapes of the part'	S
@3716		Start_request.request_justification	#36,'start'	S
@4281		Work_request	#36	M
@4282		Work_request.date_and_time_of_request	#51,#51	S

Table 24 - Application elements for case 360 (concluded)

Id	V	Application Elements	Value	Req
@4283		Work_request.requestor	#54,#54	S
@4284		Work_request.work_request_identification	#36	S
@4285		Work_request to Work_order (< role description >)	< not_present >	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.24.2 Postprocessor

Test purposes covered:

aim930, aim7, aim8, aim828, aim829, aim832, aim348, aim349, aim369, aim49, aim59, aim50, aim224, aim54, aim56, aim58, aim541, aim543, aim545, aim548, aim551, aim554, aim818, aim819, aim311, aim821, aim463, aim464, aim286, aim341, aim18, aim19, aim22, aim33, aim1033, aim836, aim837, aim841, aim500, aim501, aim503, aim2, aim3, aim345, aim850, aim851, aim857, aim557, aim793, aim794, aim796, aim727, aim728, aim730, aim15, aim10, aim12, aim1045

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

6.25 Test case 370

Test case summary:

Test case 370 is designed to test the ability to define an Item whose Item_version is Made_in_house, and Item_definition is a Designed_item. It is also designed to test the ability to define Part_on_product, Part_on_product_location, Marketable_assembly and Production_effectivity.

6.25.1 Preprocessor

Test purposes covered:

The following general test purposes are covered: g1, g2 and g3

In the preprocessor input specification table of a test case, the numbers in column 1(ignoring the part beyond the decimal point, if any),whose rows are non-blank in column 2(V), identify the Application Element purposes covered by this test case.

Input specification:

Table 25 - Application elements for case 370

Id	V	Application Elements	Value	Req
@1419.1		Item	#5	M
@1420		Item.item_description	#5,'Gutter-Component Lid Side Right & Left'	S
@1421		Item.item_name	#5,'Gutter-Component Lid Side Right & Left'	S
@1422		Item.item_number	#5,'88776655'	S
@1425		Item to Item_classification (is classified by)	@1478.1,@1478.2,@1478.3	M
@1428		Item to Item_version (is versioned by)	@1724.1,@1724.2	M
@1419.2		Item	#55	M
@1420		Item.item_description	#55,'Ferry star'	S

Table 25 - Application elements for case 370 (continued)

Id	V	Application Elements	Value	Req
@1421		Item.item_name	#55,'Ferry star'	S
@1422		Item.item_number	#55,'gngmwlei38'	S
@1423		Item to Item_classification (<role description>)	<not_present>	M
@1427		Item to Item_version (<role description>)	@1724.3	M

Table 25 - Application elements for case 370 (continued)

Id	V	Application Elements	Value	Req
@1478.1		Item_classification	#15	M
@1479		Item_classification.classification_description	#15,'Gutter-Component Lid Side Right & Left'	S
@1480		Item_classification.classification_-identification	#15,'part'	S
@1481		Item_classification.classification_name	#15,'part'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (versions)	@1419.1	M
@1478.2		Item_classification	#18	M
@1479		Item_classification.classification_description	#18,'Gutter-Component Lid Side Right & Left'	S
@1480		Item_classification.classification_-identification	#18,'part definition'	S
@1481		Item_classification.classification_name	#18,'part definition'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (versions)	1419.1	M
@1478.3		Item_classification	#19	M
@1479		Item_classification.classification_description	#19,'Gutter-Component Lid Side Right & Left'	S
@1480		Item_classification.classification_-identification	#19,'internal'	S
@1481		Item_classification.classification_name	#19,'internal'	S
@1482		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1485		Item_classification to Item_classification_-relationship (<role description>)	<not_present>	M
@1489		Item to Item_classification (versions)	@1419.1	M

Table 25 - Application elements for case 370 (continued)

Id	V	Application Elements	Value	Req
@2202		Part	#5	S
@382.1		Designed_item	#11	M
@383		Designed_item.creation_date_and_time	#20,#20	S
@384		Designed_item.data_exchange_history	(#41,#41, #41,#41)	S
@385		Designed_item.data_ownership	#24,#24	S
@386		Designed_item.designer	#29,#29	S
@387	*	Designed_item.generating_system_-information	#31,'CAD System'	S
@388	*	Designed_item.media_requirements	#32,#32	S
@1204.1		Final_part_definition	#11	S
@1206		Final_part_definition to Part_on_product (<role description>)	@2305	M
@1208		Final_part_definition to Part_process_plan (<role description>)	<not_present>	M
@2252.1		Part_definition	#11	S
@2253		Part_definition to Material_definition (<role description>)	<not_present>	M
@1724.1		Item_version	#13	M
@1725		Item_version.approval	#42,#42	S
@1726		Item_version.approval_status	#44,#44	S
@1727		Item_version.description	#13,'Increased width of Gutter'	S
@1728		Item_version.item_version_identification	#13,'88776655-1'	S
@1729		Item_version.revision_date_and_time	#20,#20	S
@1732		Item_version to Item_definition (<role description>)	<not_present>	M
@1734		Item to Item_version (<inverse role>)	@1419.1	M
@1724.3		Item_version	#54	M
@1727		Item_version.description	#54,'K car'	S
@1728		Item_version.item_version_identification	#54,'3-5'	S
@1731		Item_version to Item_definition (<role description>)	<not_present>	M

Table 25 - Application elements for case 370 (continued)

Id	V	Application Elements	Value	Req
@1734		Item to Item_version (<inverse role>)	@1419.2	M
@1935	*	Marketable_assembly	#46	M
@1936	*	Marketable_assembly.model_identification	#46,'bgr-39'	S
@1937	*	Marketable_assembly.production_year	#49,1999	S
@1938	*	Marketable_assembly.style_identification	#46,'K car'	S
@1939		Marketable_assembly to Part_on_product (is the product for)	<not_present>	M
@2305	*	Part_on_product	#53	S
@2307	*	Part_on_product to Part_on_product_-location (is located on)	@2367	M
@2310	*	Part_on_product to Production_effectivity (has)	@2978.1	M
@2313	*	Final_part_definition to Part_on_product (<inverse role>)	@1204.1	M
@2315		Marketable_assembly to Part_on_product (<inverse role>)	<not_present>	M
@2367	*	Part_on_product_location	#53,'On the door'	M
@2368	*	Part_on_product_location.intraproduct_-location	#53,'On the door'	S
@2370	*	Part_on_product to Part_on_product_-location (<inverse role>)	@2305	M
@2978.1	*	Production_effectivity	#58	M
@2979	*	Production_effectivity.date_and_time_-effectivity	#58,#58'	S
@2980	*	Production_effectivity.effectivity_-identification	#58,'effect-8'	S
@2981	*	Production_effectivity.sequence_effectivity	#68,#68	S

Table 25 - Application elements for case 370 (concluded)

Id	V	Application Elements	Value	Req
@2983	*	Part_on_product to Production_effectivity (applies to)	@2305	M
@1597	*	Item_definition	#11	M

Table 25 - Application elements for case 370 (concluded)

Id	V	Application Elements	Value	Req
@1598	*	Item_definition.approval	#33,#33	M
@1599	*	Item_definition.approval_status	#35,#35	M
@1600	*	Item_definition.definition_description	#11,'Increase the width ofGutter	M
@1601	*	Item_definition.procurement_information	#36,#36	M
@1602	*	Item_definition.proprietary_security_usage_-information	#38,#38	M
@1604		Item_definition to Feature (<role description>)	<not_present>	M
@1607		Item_definition to Item_definition_-relationship (<role description>)	<not_present>	M
@1610		Item_definition to Item_definition_-relationship (<role description>)	<not_present>	M
@1613		Item_definition to Shape_definition (<role description>)	<not_present>	M
@1616	*	Item_definition to Item_version (<role description>)	@1724	M

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc2, and gvc3 (and its related derived verdict criteria). The verdict criteria derivable from the application elements with non blank entries in column 2(V) on input specification table apply.

6.25.2 Postprocessor

Test purposes covered:

aim589, aim590, aim598, aim46, aim818, aim819, aim825, aim224, aim311, aim599, aim600, aim622, aim624, aim625, aim603, aim844, aim845, aim849, aim555, aim541, aim543, aim545, aim548, aim551, aim554, aim556, aim500, aim501, aim850, aim851, aim855, aim557, aim348, aim349, aim793, aim794, aim798, aim49, aim59, aim836, aim837, aim842, aim503, aim858, aim859, aim862, aim765, aim766, aim767, aim614, aim615, aim596, aim597, aim270, aim271, aim273, aim275, aim60, aim61, aim601, aim313, aim314, aim310, aim446, aim448, aim450, aim290, aim293, aim770, aim772

The following general test purposes are covered: g1, g4 and g5.

The numbers in column 1 (ignoring the part beyond the decimal point, if any) of input specification table, whose rows are non blank in column 2(V), identify the AE test purposes covered in this test case.

Input specification:

See annex C.

Verdict criteria:

The following general verdict criteria apply: gvc1, gvc4, and gvc5.

The verdict criteria derivable from the application elements with non-blank entries in column 2(V) of input specification table above apply.

Annex A
(normative)

Conformance classes

Table A.1 lists the associativity between each test case in this document and the conformance classes of ISO 103-207. A test campaign for a particular conformance class must contain its associated test cases.

Table A.1 Conformance classes and associated test cases

Test Case	Conformance Class													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
case120	X													
case130	X													
case140	X													
case150	X													
case160	X													
case170	X													
case180	X													
case190	X			X										
case200	X													
case210	X				X									
case220	X													
case230	X						X							
case250	X	X												
case260	X	X												
case270	X	X												
case280	X													
case290	X													

Table A.1 Conformance classes and associated test cases (concluded)

Test Case	Conformance Class													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
case300	X													
case310	X													
case320	X													
case330	X													
case340	X													
case350	X													
case360	X													
case370	X													

Annex B
(normative)

Information object registration

To provide for unambiguous identification of an information object in an open system, the object identifier

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is assigned to this part of ISO 10303. The meaning of this value is defined in ISO/IEC 8824-1, and is described in ISO 10303-1.

Annex C
(normative)

Postprocessor input specification file names

The postprocessor input specifications for each test case is supplied electronically on magnetic media (floppy diskette). Table C.1 lists the file names of the postprocessor input specification that is associated with the postprocessor subclause(s) of a test case.

Table C.1 Postprocessor input specification file names

Test Case	File name
Test case 120	case120.p21
Test case 130	case130.p21
Test case 140	case140.p21
Test case 150	case150.p21
Test case 160	case160.p21
Test case 170	case170.p21
Test case 180	case180.p21
Test case 190	case190.p21
Test case 200	case200.p21
Test case210	case210.p21
Test case 220	case220.p21
Test case 230	case230.p21
Test case 250	case250.p21
Test case 260	case260.p21
Test case 270	case270.p21
Test case 280	case280.p21
Test case 290	case290.p21

Table C.1 Postprocessor input specification file names (concluded)

Test Case	File name
Test case 300	case300.p21
Test case 310	case310.p21
Test case 320	case320.p21
Test case 330	case330.p21
Test case 340	case340.p21
Test case 350	case350.p21
Test case 360	case360.p21
Test case 370	case370.p21

Annex D
(informative)

Excluded test purposes

D.1 Abstract supertypes

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-207 are excluded from being verdicted in any test since these entities are abstract supertypes which shall only be instantiated as their subtypes.

Action_assignment

Approval_assignment

Contract_assignment

Date_and_time_assignment

Date_assignment

Document_reference

Organization_assignment

Person_and_organization_assignment

Person_assignment

Security_classification_assignment

D.2 Subtype Mandatory Requirement

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-207 are excluded from being verdicted in any test since ISO 10303-207 either places local constraints on these entities which cause them to behave like abstract supertypes, or allows circumstances under which they do so.

Action_method that is an action_method_with_specification_reference

Action_method_relationship that is a serial_action_method

Application_context_element

Action_resource_requirement that is a requirement_for_action_resource

B_spline_curve that is not a Rational_b_spline_curve

B_spline_surface that is not a Rational_b_spline_surface

Boundary_curve that is an outer_boundary_curve

Bounded_curve

Cartesian_transformation_operator

Closed_shell that is an oriented_closed_shell

Composite_curve that is a composite_curve_on_surface

Composite_curve_segment that is a reparametrised_composite_curve_segment

Connected_face_set

Curve that is not a Bounded_curve

Date

Degenerate_pcurve that is an evaluated_degenerate_pcurve

Dimensional_location

Edge

Elementary_surface

Face_bound that is a face_outer_bound

Face_surface that is an advanced_face

Functionally_defined_transformation that is a cartesian_transformation_operator

Geometric_set

Half_space_solid that is a boxed_half_space

Loop

Measure_with_unit that is neither an uncertainty_measure_with_unit nor a measure_representation_-item

Named_unit

Open_shell that is an oriented_open_shell

Path

Placement

Product_category that is a product_related_product_category

Product_definition_formation that is a product_definition_formation_with_specified_source

Product_definition_usage

Product_related_product_category that is a product_type

Property_definition_representation that is a shape_definition_representation

Serial_action_method that is a sequential_method

Shape_aspect that is a datum

Shape_representation

Solid_model

Surface

Surface_curve

Swept_surface

Topological_representation_item

Toroidal_surface that is a degenerate_toroidal_surface

Vertex that is a vertex_point

Work_order

D.3 Values restricted by dependent instantiation rules

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-207 are excluded from being verdicted in any test since their direct instantiation is forbidden by local rules within ISO

10303-207.

Action that is neither the assigned_action of an action_assignment, the related_action or relating_-action of an action_relationship, a member of the set of usages for an action_resource_type, the definition of an action_property, nor the operation of an action_resource_requirement

Action_request_solution

Application_context that is neither the frame_of_reference of an application_context_element, nor the application of an application_protocol_definition.

Configuration_design

Contract that is neither the assigned_contract of a contract_assignment, a member of the set of items for a sheet_metal_person_assignment, nor a member of the set of items for a sheet_metal_-organization_assignment

Date_role that is not the role of a date_assignment

Date_time_role that is not the role of a date_and_time_assignment

Derived_unit that is not the unit_component of a measure_with_unit

Functionally_defined_transformation that is not the transformation_operator of a representation_-relationship_with_transformation

Item_defined_transformation that is not the transformation_operator of a representation_-relationship_with_transformation

Organization_role that is not the role of an organization_assignment

Person_and_organization_role that is not the role of a person_and_organization_assignment

Person_role that is not the role of a person_assignment
Tolerance_range that is not the range of a plus_minus_tolerance

D.4 Values restricted by geometrical context

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-207 are excluded from being verdicted in any test since ISO 10303-207 deals with 3D designs only, and these entities are only meaningful in 2D design.

Axis1_placement
Axis1_placement with axis

Axis1_placement with axis not present

Axis1_placement_2d
Axis1_placement_2d with ref_direction
Axis1_placement_2d with ref_direction not present

Cartesian_transformation_operator_2d
Cartesian_transformation_operator_2d with axis1
Cartesian_transformation_operator_2d with axis1 not present
Cartesian_transformation_operator_2d with axis2
Cartesian_transformation_operator_2d with axis2 not present
Cartesian_transformation_operator_2d with scale
Cartesian_transformation_operator_2d with scale not present

Circle
Circle with position as Axis2_placement_2d

Ellipse with position as Axis2_placement_2d

Hyperbola with position as Axis2_placement_2d

Offset_curve_2d
Offset_curve_2d with self_intersect = TRUE
Offset_curve_2d with self_intersect = FALSE
Offset_curve_2d with self_intersect = UNKNOWN

Parabola with position as Axis2_placement_2d

D.5 Values restricted by local rules

The following test purposes derived from the AIM EXPRESS listing of ISO 10303-207 are excluded from being verdicted in any test since their values are forbidden by local rules in ISO 10303-207.

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